

EX.1851.458
AR-B-2.



EX. 1851. 458

~~BR-B-Z~~

~~ACF.~~

PROCEEDINGS
OF THE
CENTRAL COMMITTEE
OF THE
UNITED STATES
ON THE
INDUSTRIAL EXHIBITION
OF
1851,

AT THE MEETING HELD SEPTEMBER 16TH, 1850.



WASHINGTON :
ROBERT A. WATERS, PRINTER.
1850.

PROCEEDINGS

Michael Nourse & Co.



384/55

No. 17, Cornhill,

London. 7/8/1854

Dear Sir

Mr. Stanbury
wrote to Washington some
time since about publications
connected with the Exhibition
of 1851. — I enclose the only
one we have obtained, and
fear that you have it already.

I am, &c &c

Yours very truly

C.W. Yapp

Wentworth Dilke Esq
in in

PROCEEDINGS
OF THE
CENTRAL COMMITTEE
INDUSTRIAL EXHIBITION
OF THE
UNITED STATES

ON THE
INDUSTRIAL EXHIBITION

Dear Sir: I beg to inform you that I have issued, a copy of, which you will find enclosed, of the
William Read, 4, Old Bond
Street, of the Industrial Exhibition
of 1851,
concerning upon the subject of the
Exhibition.

AT THE MEETING HELD SEPTEMBER 16TH 1850.



WASHINGTON :
ROBERT A. WATERS, PRINTER.
1850.

24.11.67.

PROCEEDINGS
CENTRAL COMMITTEE
UNITED STATES

INDUSTRIAL EXHIBITION

AT THE MICHIGAN HALL, DETROIT, 1850.

WASHINGTON,
MONTGOMERY & MASTERS PRINTERS
1850.

250000000

INDUSTRIAL EXHIBITION.

At a meeting of the **CENTRAL COMMITTEE** of the United States on the Industrial Exhibition of 1851, held at the Rooms of the National Institute, Monday evening, September 16, 1850, his Excellency **MILLARD FILLMORE**, President of the United States, in the chair, a letter was read from the Hon. Daniel Webster, Secretary of State, to Col. Peter Force, accompanying certain printed papers received from the American Minister in London, which were also read.

The following Letter from the Hon. **ABBOTT LAWRENCE**, American Minister in London, was read and ordered to be printed with the proceedings of the Committee:

LONDON, August 28th, 1850.

DEAR SIR: I beg to acknowledge the receipt of your letter of the 6th instant, a copy of which I have transmitted with the pamphlet to Col. William Reid, 1, *Old Palace Yard*, Chairman of the Executive Committee of the Industrial Exhibition, to whom you can address communications upon the subject of the Exhibition.

I am happy to inform you that arrangements for the proposed Exhibition are now being made upon an extensive scale in France; two thousand persons having, as I learn, already entered their names in France as exhibitors. Every country in Europe will contribute to this grand show, and Egypt, Persia, India, and China, are preparing the products of their skill and labor for the Exhibition. I believe that nearly all nations will come here in 1851. I cannot but entertain the sanguine hope that the citizens of the United States will avail themselves of this opportunity, not only of exhibiting the various products of our skill and labor, but induce as many men as possible to come here, who possess the ability to profit by what they see produced by other countries. I believe, in a commercial point of view, we may reap great advantages by increas-

ing our exports. To the inventors, mechanics, and skilful men in the arts and practical sciences, it will be eminently useful to come here and examine the products of mind and labor that will be brought together from all parts of the world. And above all, we have the opportunity of impressing upon all nations the extent, resources, and power of our great and favored country. If we present specimens of our minerals, agricultural products, manufactures, and inventions from the various States of the Union, I am quite sure that we shall make a deeper impression upon the public mind (as a nation) than could be accomplished by the exhibition of fleets and armies. If we come here as exhibitors of the progress we have made in the industrial arts, pray let it be in our full strength and power. It is one of those occasions when we should do our best. I have sent a pamphlet containing the views of Mr. Charles Dupin, which I am sure you will say is "nothing wavering." It was published in the *Morning Chronicle*, several copies of which I forwarded to the United States last week. Would it not be well to republish it in our newspapers? I will suggest the necessity of the early appointment of an agent in London to receive the articles intended for the Exhibition.

I am, dear sir, very faithfully

Your obedient servant,

ABBOTT LAWRENCE.

To WALTER R. JOHNSON, Esq.,
Washington, D. C.

A letter from M. DIGBY WYATT, Esq., forwarded to the Secretary of the Central Committee was read and ordered to be printed:

OFFICE FOR THE EXECUTIVE COMMITTEE,

1, Old Palace Yard, Westminster,

August 5, 1850.

SIR: I am instructed by the Executive Committee to enclose for your information a copy of a letter which has been sent by the Commissioners appointed by her Majesty for "promoting the Exhibition of Industry of all nations in 1851," to the various committees abroad.

As it may become necessary for you to know the *scale of charges* proposed by the agents therein named, I have the pleasure of forwarding you a copy of the letter addressed to Mr. Chinnery, Messrs. Lightly & Simon, Messrs. McCracken, Mr. Maclean, Mr. Major, and Messrs. Phillips and Rowell, which letter has been acknowledged by each to be a correct report of their intentions. I also enclose a copy of Mr. Stahlschmidt's offer, and extracts from the letters of the agents at the Outports named.

I have further the pleasure of forwarding a copy of the very liberal offer of Messrs. Nicholson, Besley & Co.

In transmitting you these documents, I am desired by the Executive Committee to state that they do so because they may facilitate your future arrangements; but it must be distinctly understood, that her Majesty's Commissioners do not undertake to see to the carrying into effect, or hold themselves in any wise responsible for, the correct execution of the proposals contained in the various letters.

The duty of the Commissioners cannot commence until the articles intended for the Exhibition are lodged in the building by the authority of the Central Commission of the country from which they arrive and are arranged by the agent or agents nominated by the Committee representing the interest of that country.

I have the honor to be, Sir, your most obedient servant,
M. DIGBY WYATT, *Secretary.*

To Prof. WALTER R. JOHNSON,
*Secretary of the Central Committee for the
Industrial Exhibition of all Nations,
Washington City, D. C.*

A Circular Letter, with information for the use of foreign exhibitions, and a classification of the Exhibition, were also read and ordered to be printed as follows:

Copy of the letter addressed by her Majesty's Commissioners to the various Commissioners appointed in Foreign countries to promote the Exhibition.

PALACE OF WESTMINSTER, July 29, 1850.

SIR: We are directed by her Majesty's Commissioners for the Exhibition of 1851 to communicate to you and the other Commissioners appointed by the American Government, the great satisfaction with which they have received the intelligence of the formation of your commission, and of the steps which have been taken by it for the purpose of co-operating with them, and of properly representing the industry of your country in the approaching Exhibition in London.

The Commissioners have themselves been anxiously occupied in making preparations for the reception of those valuable and interesting objects which you may forward for exhibition, and for the erection of a suitable building for their display; and also in making such other arrangements regarding Medals, Prizes, Juries, and the general condi-

tions of exhibition, as seem most likely to promote the objects of the friendly competition in which so many great nations are now taking such deep interest.

The enclosed printed papers (Decisions of her Majesty's Commissioners) will sufficiently communicate to you, for the information of American exhibitors, the nature of the arrangements that have been made for the admission of foreign productions to the Exhibition; and we are directed to call your attention especially to that portion relating to the Custom House arrangements.

According to the regulations of the Board of Customs, it is necessary that the agents employed should enter into bonds to secure the payment of the duties assessed on the goods which are sent for exhibition, should such goods be sold in this country after the Exhibition is closed; but as all goods transmitted by the same vessel, and consigned to one and the same agent, will be covered by one bond, it would much facilitate the arrangement for all parties, and diminish the expense, if the articles intended for Exhibition were forwarded by each Central Authority *en masse*, or at all events, in as few separate consignments as possible.

Her Majesty's Commissioners, as you will perceive by the accompanying papers, have nominated, on the recommendation of the Commissioners of the Board of Customs, several persons as proper and responsible agents to be employed for the Port of London; all of whom have stated their willingness to adopt a much lower scale of charges than those usually required in ordinary mercantile transactions for the services they may render, and to furnish a statement of the proposed charges, so far as they can be specified beforehand, to all parties who may desire to know them.

Of the agents named for the Outports, Mr. Ormston, of Newcastle, and Messrs. Fords and Canning, of Bristol, have signified their intention of not making any charges except those to which they may be personally subjected, and the others purpose to charge less than their ordinary rates.

In addition to the facilities offered by these gentlemen, we are further directed to add that the firm of Messrs. Nicholson, Besley & Co, (East India and China Wharf, London,) have signified their intention of making no charge upon goods conveyed by their lighters, or for landing on their quays; and the Hull Dock Company, Hull, have also announced that no charge for wharfage will be made by that company. The usual charges will therefore be still further reduced in the case of all persons who may take advantage of the offer thus liberally made by these parties.

7

In transmitting the names of these agents, Her Majesty's Commissioners are desirous that it should be clearly understood that they do not hold themselves in any way accountable for the charges which may be made, and that the sole object which they have had in view, in what must be considered as a private transaction between the Exhibitors and the agents, has been merely to suggest means for affording to foreign exhibitors the opportunity of availing themselves, if they might see fit, of those arrangements which the Commissioners believe would be found to be most convenient and economical; it being distinctly understood that any central authority or foreign exhibitor is perfectly free to employ any other Agent than those named, and to make any other arrangements that may be deemed more convenient.

The attention of the Commissioners have been called to the question of fitting up the American goods for exhibition. The Commissioners in London have to state that they are willing to undertake to supply counters upon which the goods may be displayed. But American exhibitors, or such commissioners, or representatives as may be duly authorized to act for them, will be at perfect liberty to take charge of fitting them up according to their taste with glass shades, &c., &c., at their own cost. It will be very desirable that you should acquaint us at an early period with your intentions with reference to this point; and also with the views which you entertain of appointing authorized agents here to be specially charged on your behalf with the care and display of the goods transmitted under your orders.

The Commissioners trust that the arrangements, the details of which are now submitted to you, will be satisfactory, and that these will serve to show that they are not insensible to the value of the exertions which you are making to co-operate in this great Industrial Exhibition of the works of all nations.

We avail ourselves of this opportunity to offer to you the assurances of the high consideration and esteem with which we have the honor to sign ourselves,

Sir, your most faithful servants,

J. SCOTT RUSSELL.

STAFFORD H. NORTH COTE.

To Prof. WALTER R. JOHNSON,

Secretary of the Central Committee for the

Industrial Exhibition at London for the United States,

Washington, D. C.

Copy of the Letter addressed to Mr. CHINNERY, Messrs. LIGHTLY and SIMON, Messrs. M'CRACKEN, Mr. MACLEAN, Mr. MAJOR, and Messrs. PHILLIPPS and ROWELL.

OFFICE FOR THE EXECUTIVE COMMITTEE,

1, Old Palace Yard, Westminster,

July 8th, 1850.

GENTLEMEN: I am instructed by her Majesty's Commissioners to inquire if they clearly comprehend the scale of rates which, in your communication with Sir Alexander Spearman, you proposed to him to charge for goods sent through your agency for the Exhibition of 1851, if your names were amongst those suggested to exhibitors abroad. Her Majesty's Commissioners understand that you intend to divide your charges under two heads:—

- 1st. Expenses which are actually paid out of pocket for the Exhibitors.
- 2d. Charges for your own remuneration.

Under the first head are to be considered—

1. *Freight* from the port of departure. This is to be the sum actually paid. The amount is of course uncertain, depending entirely on the arrangements made on the other side.

2. *The postage* actually incurred in each case.

3. *The Customs bond.* As, however, under the facilities to be afforded by the Board of Customs, one Bond will cover the whole consignment in the same vessel to one agent, the charge of 5s., being the stamp duty, is to be divided among the several consigners. Thus, if five parties send over by the same vessel to the same agent, the charge is to be 1s. each.

4. *Lighterage*, being the actual expenses in bringing the goods from the vessel to the wharf. This charge her Majesty's Commissioners understand to have been arranged by you as follows:—

On small packages, under 6 feet cube	0s. 6d. per package
“ of 6 feet and under 10 feet cube	0 9 “
“ of 10 feet and under 20 feet cube	1 0 “
Larger packages, but not unusually large	2 0 “

5. Landing from the lighter, wharfage, and loading into carts for re-

moval. This charge they also understand to have been arranged by you as follows:—

On all packages under 10 feet cube	1s. 0d.
of 10 feet and under 20 feet cube	1 6
of 20 "	2 0
of 40 "	3 0
of 60 "	4 6
of 80 "	6 0
of 100 feet	10 0

The Hull Dock Company have signified their intention of not making any charge for goods passing over their wharves; and other Companies or individuals* in London may adopt the same course. It is to be understood, therefore, that, with regard to lightrage, wharfage, and landing, the agents will in such cases employ such parties in respect to goods intended for the Exhibition so as to secure to the exhibitors that they shall be relieved from those charges in the manner intended.

6. *Cartage* from the wharf to the building.—Her Majesty's Commissioners understand you cannot fix the charges, because they must be regulated by the bulk, weight, &c.; but her Majesty's Commissioners are informed by Sir Alexander Spearman, that you will keep them as low as possible, and that the charges will probably be from 2s. per package upwards.

7. *Unpacking* at the building.—This charge depending entirely on the nature of the contents of each package, the care required and the time occupied, no scale of rates can be fixed on; but the greatest economy of time and labor is to be practised, and the charge is to be kept as closely as possible to the expense incurred.

For your own remuneration, for time, clerks' hire, correspondence, giving bond, &c., &c., Her Majesty's Commissioners understand that you propose on each warehousing entry to charge 2s. 6d. to each party, and on each bond given 2s. 6d. This latter charge is, of course, to be divided in the same manner, as the stamp duty on the bond, that is, among the several parties when more than one consign by the same vessel to the same agent. On such package, the property of the same consigner, under 20 feet cube, and if ordinary contents, a fee of 5s.

On each package larger than 20 feet cube, a fee of 7s. 6d.

On very large or valuable works, such as delicate sculpture, a steam-Engine, &c., a fee according to special agreement.

*By the correspondence, p. 14, it will be seen that Messrs. Nicholson, Besley, & Co., have made an offer even more liberal.

With regard to unpacking, removing, and re-shipment when required, all the charges are to be as nearly as possible the same as above.

Her Majesty's Commissioners understand that the aggregate charges, *excluding the bond*, would therefore be, on a case of less than 10 feet cube, about 11s. 3d.; on a case of 10 feet cube, and up to 20 feet cube, 12s.

If the foregoing correctly expresses your intention, I am instructed to request an early reply, that steps may be taken to communicate with parties intending to exhibit, and who may reside in the colonies and foreign parts.

I have the honor to be, gentlemen, your obedient servant,

(Signed)

M. DIGBY WYATT, *Secretary.*

(*Copy of Mr. STAHL SCHMIDT'S Letter.*)

14, MARK LANE, July 13, 1850.

SIR: Sir Alexander Spearman has correctly stated to Her Majesty's Commissioners for the Exhibition of the Industry of all Nations for 1851, that I proposed, in consideration of the large number of packages expected, to charge for the goods sent through my agency to that Exhibition, a consolidated rate in proportion to 9s. for a package of 10 feet cube, including all charges from the ship direct to Hyde Park (bond and freight only excluded); that I should make no charge for warehousing entries, and that it would include the remuneration for superintending the unpacking of packages of ordinary contents, or that the charge might be divided, say 4s. for lighterage, landing, wharfage, and cartage, and 5s. agency for such sized package.

I adopt the graduated scale proposed by Her Majesty's Commissioners, say—

7s. 6d. for a package not exceeding 5 feet cube.

9 0 for a package exceeding 5 feet and not exceeding 10 feet.

11 6	"	10 feet	"	15 feet.
------	---	---------	---	----------

14 0	"	15 feet	"	20 feet.
------	---	---------	---	----------

16 6	"	20 feet	"	30 feet.
------	---	---------	---	----------

18 6	"	30 feet	"	40 feet.
------	---	---------	---	----------

For larger in proportion, excepting those of extraordinary weight and size. The charge for superintending the unpacking of packages requiring particular care and much time, will be regulated by a moderate estimate of such extra trouble, it being understood that I am not answerable for any breakage or accident that might happen during the operation.

If Messrs. Nicholson, Besley and Co. will cause the goods to be lightered, landed and delivered to the carts free of expense on their premises, the exhibitors will of course have the benefit of any part thereby saved, and my charges, independent of agency, will be reduced to cartage, to be made in proportion to the scale adopted.

I remain, sir,

Your obedient humble servant,

(Signed) F. STAHL SCHMIDT,

Of the Firm of Drolenvaux and Stahlschmidt.

M. DIGBY WYATT, Esq.,

Secretary to the Executive Committee of the Royal

Commissioners for the Exhibition of Industry of all Nations.

(Extracts from Letters from Agents at the Outports.)

DOVER.—John Friend.

“1st. The Landing Charges:—

Packages under 14 lbs. weight	0 3d.
“ 14 lbs. to 56 lbs. weight	0 6
“ 56 lbs. to 1 cwt.	1 0
“ above 1 cwt. 1s. per cwt.	

“These charges are fixed by the Pavement Commissioners of Dover, under an Act of Parliament authorizing them to appoint porters for landing packages from the packets. If many cases come, as they are not to be opened, I should probably get them lessened by arrangement, and could do so if sent as cargo by merchandize vessels, as we should then be able to employ our own men. *Town and Harbour* dues and wharfage, 7d. per case.

“2nd. taping and sealing:

Packages under 14 lbs. weight	1s. 0d.
“ 14 lbs. to 1 cwt.	1 6
“ above 1 cwt.	2 6

(To include wax, cord, &c.)

“3rd. Delivery to railway.—Included in charge for landing.

“4th. Agency.—2s. 6d. per package.”

DOVER.—John Hayward, Jun.

“Charges on goods at this port, as fixed by the Local Commissioners, would be, for the landing of packages from the vessel to the Custom

believe, *below* the average charges for goods requiring to be forwarded under bond, would be *our* sole charges, except the cost of bond, and all other charges only actual *bona fide* disbursements."

SOUTHAMPTON.—*George A. P. Brady.*

1st. Postage to be charged when incurred.

2nd. The landing or dock charges on packages vary according to description, size, weight, and contents; I therefore hand you the Dock Company's Tariff, so that you may be made acquainted with the charge on any goods or any special article, should you require the same. The average charges will be—for heavy goods, 3s. 4d. per ton, for light goods, 5s. per ton; weight and machinery, 5s. to 6s. 6d. per ton, including landing, houseing, and delivery to railway station.

3rd. Taping and sealing, 4d. per package.

4th. The delivery to railway included in dock charges, as above.

5th. Agency 2s. per package, to include all entries, attendance, and forwarding.

(*Copy of Messrs. NICHOLSON, BESLEY, and Co's Offer.*)

EAST INDIA AND CHINA WHARF,
12 and 14, Lower Thames Street, June 14th, 1850.

To the Committee of the Royal Commission of the Exhibition of 1851.

MY LORDS AND GENTLEMEN: We feel great interest in the success of the Exhibition of 1851, and it has occurred to us, whether we could not very materially aid the Commission by the proposal we now make.

We expect that large quantities of goods will be sent to this Port for the Exhibition, in steam boats and other vessels, by foreigners who know nothing of the routine of waterside business, and who would consequently be under the necessity of employing agents at much expense and trouble to enter their goods at the Custom House, and clear them at the several docks and wharves, we therefore think it may be acceptable to the Commission if we offer to undertake the whole of such business without any charge whatever.

It will be our duty, provided the Commission deem our offer worthy of acceptance, to explain more fully our views on the subject, in the meanwhile we beg the Commission to understand, generally, that we purpose bearing the expense of agency, lighterage, &c., to be incurred in bringing from steamboats and other vessels entering this port, all the

goods from foreign countries intended for the Exhibition, and to give the labour of our establishment in landing the goods here, and delivering them from hence.

We have the honor to be,

My Lords and Gentlemen,

Your most obedient servants,

JOHN J. NICHOLSON, BESLEY, & Co.

PALACE OF WESTMINSTER, June 29th, 1850.

GENTLEMEN: I am directed by Her Majesty's Commissioners for the Exhibition of 1851 to acknowledge the receipt of your letter of the 14th instant, wherein you say "that you feel great interest in the success of the Exhibition of 1851. and that it has occurred to you whether you could not very materially aid the Commission by the proposal you therein made;" and also that you expect that large quantities of goods will be sent to this port for the Exhibition in steamboats and other vessels by foreigners who know nothing of the routine of waterside business, and who would consequently be under the necessity of employing agents at much expense and trouble to enter their goods at the Custom House, and clear them at the several docks and wharves; you therefore think it may be acceptable to the Commission if you offer to undertake the whole of such business without any charge whatever. Her Majesty's Commissioners feel sensible of the liberality of your offer, which, on the further information you have given to Sir Alexander Spearman, they understand to be that you are prepared to land at your wharf, at your own expense, all goods intended for the exhibition from the vessel importing them; and to load such goods in the vans or carts by which they will be conveyed to the place for exhibition; the undertaking being that you yourself propose to provide the lighters which will be required, and have engaged not to make any charge whatever for wharf dues, lighterage, or loading in the case of any exhibitor availing himself on that occasion of your services.

Upon learning from you that they have correctly apprehended the offer thus made, Her Majesty's Commissioners will be prepared to make the necessary communication to foreign countries.

I have, &c.,

(For STAFFORD H. NORTHCOTE,)

EDGAR A. BOWRING.

MESSRS. NICHOLSON AND BESLEY, &c., &c.

EAST INDIA WHARF, 6th July, 1850.

SIR: We beg to acknowledge the receipt of your letter of the 29th ultimo, and in reply we have to state that Her Majesty's Commissioners for the exhibition of 1851 have correctly apprehended the offer made by us in our letter of the 14th ultimo, which we have much pleasure in confirming.

We are, sir, yours obediently,

JOHN NICHOLSON, BESLEY, & Co.

STAFFORD H. NORTHCOTE, Esq.

PALACE OF WESTMINSTER, July 10th, 1850.

GENTLEMEN: With reference to your letter of the 14th ultimo, containing a proposal for undertaking the task of landing at your wharf, tree of expense, and subsequently loading in vans, for conveyance to the place of exhibition, goods that may be sent for exhibition from foreign countries through the port of London, and to your further communication of the 6th instant, stating that the offer thus made by you has been correctly apprehended, we are directed by Her Majesty's Commissioners for the exhibition of 1851 to inform you that they will have much satisfaction in taking advantage of your liberal proposal, and that they will take the necessary steps for making its purport known to those who may be likely to benefit by it.

We have, &c.,

J. SCOTT RUSSELL,

STAFFORD H. NORTHCOTE.

MESSRS. NICHOLSON AND BESLEY, &c., &c., &c.

INFORMATION FOR THE USE OF FOREIGN EXHIBITORS.

July, 1850.

HER MAJESTY'S COMMISSIONERS for the Promotion of the EXHIBITION OF THE WORKS OF INDUSTRY OF ALL NATIONS, to be holden in 1851, have fixed on the 1st day of May, 1851, for opening the Exhibition.

The Commissioners will be prepared to receive all articles which may be sent to them, on and after the 1st of January, 1851, and will continue so to receive goods until the 1st of March inclusive; after which day no further goods will be received.

Her Majesty has been graciously pleased to grant a site for this pur-

pose on the south side of Hyde Park, lying between the Kensington Drive and the Ride commonly called Rotten Row.

The articles exhibited will be divided into four sections, and a classified list, together with general instructions affecting each department, has been prepared.

The building will be provided to the exhibitors free from rent.

The productions of all nations will be admitted.

Exhibitors will be required to deliver their objects, at their own charge and risk, at the building in the Park; and her Majesty's Commissioners for the Exhibition 1851 will make suitable arrangements for their reception, but no charges of any kind will be made whilst they remain there.

Colonial and foreign productions will be admitted without paying duty, for the purposes of exhibition, but not for internal consumption. Her Majesty's Commissioners of Customs will consider all such articles as bonded goods.

Any manufacturer exhibiting articles which can properly be placed together according to the classification already announced, will be at liberty to arrange such articles in his own way; and his arrangement, if compatible with the convenience of other exhibitors and of the public, will not be disturbed. In like manner, if it is wished to exhibit together the productions of a particular town or district, nation or country, all such productions, if they can fairly be said to be of the same sort, will be admitted together. The decision whether they are so admissible or not, must of course rest in each case with the discretion of the Commissioners.

Where it is desired to exhibit processes of manufacture, a sufficient number of articles, however dissimilar, will be admitted for the purpose of illustrating the process; but they must not exceed what may be actually required.

In all cases where the productions of an individual are exhibited together, his wishes, with regard to the treatment of them, will be complied with as far as possible; but should they be of a nature to involve expense, the Commissioners cannot undertake to meet that expense out of their funds, but must call upon the exhibitor to defray it himself. Glass cases, frames, and stands of peculiar construction, and similar contrivances for the display or protection of the goods exhibited, must in like manner be provided by the person requiring them at his own cost.

Exhibitors must be at the charge of insuring their own goods, should they desire this security. The Commissioners take this opportunity of stating that, however careful they may be in the construction of the

building, it will be quite impossible to erect one of the required dimensions which shall be absolutely fire-proof; and although every precaution will be taken to prevent fire, and to extinguish it, should it unfortunately occur, the Commissioners cannot be responsible for losses which may be occasioned by this, or any other accident whatever.

The Commissioners are prepared to take the greatest care in their power of all objects sent; but they are not prepared to incur a degree of responsibility unusual with regard to public exhibitions. For this reason it has been already stated that exhibitors must be at the charge of insuring their own goods, and that the Commissioners cannot be responsible for losses which may be occasioned by fire, or any other accident. They will spare no pains in making such police and other arrangements as may appear adequate for the protection of the exhibition, and the security of the articles exhibited. They will, of course, give all the aid in their power for the legal prosecution of all persons guilty of robbery or wilful injury of any of the articles in the exhibition, should such unfortunately occur in spite of the precautions which will be taken.

Should any exhibitor desire to employ a servant of his own to preserve or keep in order the articles he exhibits, or to explain them to visitors, he may do so after obtaining permission from the Commissioners. Such persons, however, will in all cases be forbidden to invite visitors to purchase the goods of their employers, the Exhibition being intended for the purpose of display only, and not for those of sale; and any violation of this or any other rule must lead to their exclusion from the building.

Prices are not to be affixed to the articles exhibited. But as the cost at which articles can be produced will, in some cases, enter into the question of the distribution of rewards, the Commissioners, or the persons intrusted with the adjudication of the rewards, may have to make inquiries, and possibly to take evidence, upon the subject; still they do not consider it expedient to affix a note of the price on the articles displayed. When the exhibitor considers the merit of his article to consist in its cheapness, he should state the price in the invoice sent to the Commissioners.

Packing-cases in which articles are brought to the building must be removed at the cost of the agent or exhibitor, as soon as the goods are examined and deposited in charge of the Commissioners.

No articles of foreign manufacture, to whomsoever they may belong, or wheresoever they may be, can be admitted for exhibition, unless they come with the sanction of the *Central Authority* of the country of which they are the produce. Her Majesty's Commissioners have communica-

ted to such Central Authority the amount of space which can be allowed to the productions of the country for which it acts, and will also state the further conditions and limitations which may from time to time be decided on with respect to the admission of articles. All articles forwarded by such Central Authority will then be admitted, provided they do not require a greater aggregate amount of space than that assigned to the productions of the country from which they come; and, provided also, that they do not violate the general conditions and limitations. It will rest with the Central Authority in each country to decide upon the merits of the several articles presented for exhibition, and to take care that those which are sent are such as fairly represent the industry of their fellow-countrymen.

Her Majesty's Commissioners will consider that to be the Central Authority in each case which is stated to be so by the Government of its country. Having once been put in communication with a Central Authority in any country, they must decline, absolutely and entirely, any communication with private and unauthorized individuals; and should any such be addressed to them, they can only refer it to the central body. This decision is essentially necessary, in order to prevent confusion.

The Commissioners do not insist upon articles being in all cases actually forwarded by the Central Authority, though they consider that this would generally be the most satisfactory arrangement; but it is indispensable that the sanction of such authority should in all cases be expressly given, and that it be held responsible for the fitness of such articles for exhibition, and for not authorizing the exhibition of a greater quantity than can be accommodated in the space assigned to the productions of the country in question.

In case the Central Authority in any country should be of opinion that the space allotted to the productions of that country is greater than it will require, the Commissioners have to request that this opinion may be communicated to them, as it is obvious that it would not appear well if a large vacant space should be left in the department assigned to any country.

The Commissioners reserve to themselves the unfettered right of directing the arrangement of all goods that may be sent in such a manner as they may think proper. They will endeavor, in the case of articles, the nature of which admits of their so doing, to cause the arrangement of each section to have some reference to the nationality of the productions exhibited in it, and will not intermix the productions of one country with those of another, in cases where the objects of the exhibition can be

attained without their doing so. Whatever may be their arrangements, however, they undertake to find places for all articles sent by each country which could, if placed together, be exhibited in the aggregate space allotted to that country, provided only that they be informed in sufficient time what proportion of that space will be required for Raw Materials, what proportion for Machinery, and what proportion for Manufactured Articles, and what proportion for objects of Fine Art. This information should be sent on or before the 1st of September.

ARRANGEMENTS MADE BY THE BOARD OF CUSTOMS TO ADMIT
FOREIGN AND COLONIAL PRODUCTIONS, FOR THE PURPOSE OF
THE EXHIBITION OF 1851, WITHOUT PAYMENT OF DUTY.

All works intended for the Exhibition will, in the first instance, be admitted into this country without payment of duty; the goods will not be subject to examination at the waterside, but will be conveyed to the place of Exhibition, at the expense of the importer, under charge of proper officers of the Customs, to be there opened by the importer or his agent, and examined in the presence of the proper officer of the Customs, in order to assess the amount of duty which would become payable thereon if sold in this country, and such marks attached thereto as may be considered necessary to maintain the identity of the goods.

The goods brought for exhibition will be considered as warehoused, under the warehousing regulations, in the premises appointed for the Exhibition; and security must be given in each case for the due re-exportation of the goods, or payment of the duty at the close of the Exhibition; and no goods liable to duty to be on any account removed from the premises until the termination of the Exhibition; and then only on payment of the duty, or for re-exportation.

All works from foreign countries intended for exhibition, should be imported into some one or other of the following ports:—LONDON, LIVERPOOL, BRISTOL, HULL, NEWCASTLE, DOVER, FOLKESTONE, and SOUTHAMPTON.

That the packages, when unaccompanied by the proprietors, shall be addressed to agents.

The agents at the Outports will take all the needful steps for forwarding, under the directions of the Commissioners of the Customs, the packages unopened to London (where they are not imported direct into the port of London,) *and for their delivery unopened* at the building in which they are to be exhibited.

In the case of packages imported into the port of London, the agent to whom they will be addressed will take charge of them on their arrival, and forward them unopened to the building for exhibition.

To secure the arrival of all the packages unopened and unexamined at the place of exhibition, they will be sealed at the port of landing, with the official seal of the Board of Customs, which will afford a guarantee at the same time to the party and to the revenue.

The whole of the goods will be admitted, in the first instance, without payment of any duty; and if they are not disposed of in England, they will be delivered up for re-exportation, free of all charge for duty. If, however, they shall be disposed of in England, the duty chargeable thereon must in that case be paid before they are removed from the place of exhibition, but they cannot be removed until the Exhibition is finally closed.

When the packages have been duly deposited in the building in which they are to be exhibited, they will be opened and examined in the presence of the proprietor, or of the agent in his behalf, and will then be in custody of the Commission, without whose authority they cannot be removed from the Exhibition.

All goods which are forwarded to England will remain deposited in charge of the Customs, until claimed by an agent of the party sending them, who will have to establish his right to remove them to the building, by producing the bill of lading, and the certificate given to the exhibitor by the Central Authorities in each country, that such goods are intended for exposition.

Goods placed in charge of the officers of the Royal Commission by a custom house agent, for which goods he has given bond, will not be permitted to be removed from the Exhibition by any person but the agent through whom they are exhibited.

LIST of AGENTS recommended as fit persons to be employed by Foreigners in passing **ARTICLES** for the **EXHIBITION** in 1851, through the **CUSTOM HOUSES**, and who have agreed to do so on terms below those charged in ordinary mercantile transactions. Each of the undermentioned agents are prepared to forward their scale of charges.

LONDON.—Mr. Chinnery, 67½, *Lower Thames-street*. Messrs. Lightly and Simon, 123, *Fenchurch street*. Messrs. McCracken, 7, *Old Jewry*. Mr. D. Maclean, *Lobby, Custom-House*. Mr. C. T. Major, 21, *Billiter-street*. Messrs. Phillips and Rowell, 11, *Water-lane, Thames-street*. Messrs Stalschmidt and Co., 14, *Mark-lane*.

BRISTOL.—Messrs. Fords and Canning.

HULL.—Messrs. Good, Todman and Co.

LIVERPOOL.—Messrs. Sherlock.

NEWCASTLE.—Mr. John Ormston, 58, *Quay Side*.

DOVER.—Mr. John Hayward, Junior. Mr. John Friend.

FOLKESTON.—Mr. F. M. Faulkner. Mr. Theodore Walsh.

SOUTHAMPTON.—Mr. G. A. P. Brady.

THE PRIZES AND JURIES.

Her Majesty's Commissioners have had under their consideration the prizes to be awarded to exhibitors, and have resolved to take immediate steps for having (three) medals struck of various sizes and different designs, it being their opinion that this is the form in which it will, generally speaking, be most desirable that the rewards should be distributed. They have decided to select bronze for the material in which the medals are to be executed, considering that metal to be the better calculated than any other for the development of superior skill and ingenuity in the medallic art, and at the same time the most likely to constitute a lasting memorial of the Exhibition.

With regard to the mode in which the prizes are to be awarded, the Commissioners think it inexpedient to establish beforehand rules so precise as to fetter the discretion of the Juries upon which the task will ultimately devolve. It will be sufficient for the present to indicate the general principles to which it will probably be advisable to conform in the award of prizes for successful competition in the several departments of the Exhibition.

In the department of **RAW MATERIALS** and **PRODUCE**, for instance, prizes will be awarded upon a consideration of the value and importance of the article, and the superior excellence of the particular specimens exhibited; and in the case of prepared materials, coming under this head of the Exhibition, the Juries will take into account the novelty and importance of the prepared product, and the superior skill and ingenuity manifested in the process of preparation.

In the department of **MACHINERY**, the prizes will be given with reference to novelty in the invention, superiority in the execution, increased efficiency, or increased economy, in the use of the article exhibited. The importance, in a social or other point of view, of the purposes to which the article is to be applied, will also be taken into consideration, as will also the amount of the difficulties overcome in bringing the invention to perfection.

In the department of **MANUFACTURES**, those articles will be rewarded which fulfil in the highest degree the conditions specified in the sectional list already published, viz: Increased usefulness, such as permanency in dyes, improved forms and arrangements in articles of utility, &c.; superior quality, or superior skill in workmanship; new use of known materials; use of new materials; new combinations of materials, as in metals and pottery; beauty of design in form, or colour, or both, with reference to utility; cheapness, relatively to excellence of production.

In the department of **SCULPTURE, MODELS, and the PLASTIC ART**, the rewards will have reference to the beauty and originality of the specimens exhibited, to improvements in the processes of production, to the application of art to manufactures, and, in the case of models, to the interest attaching to the subject they represent.

These general indications are sufficient to show that it is the wish of the Commissioners, as far as possible to reward all articles in any department of the **Exhibition** which may appear to competent judges to possess any decided superiority, of whatever nature that superiority may be. It is the intention of the Commissioners to reward excellence in whatever form it is presented, and not to give inducements to the distinctions of a merely individual competition. Although the Commissioners have determined on having three medals of different sizes and designs, they do not propose to instruct the Juries to award them as first, second, and third in degree for the same class of subjects. They do not wish to trammel the Juries by any precise limitation; but they consider that the Juries will rather view the three kinds of medals as a means of appreciating and distinguishing the respective characters of the subjects to be rewarded, and not of making distinctive marks in the same class of articles exhibited. They fully recognize that excellence in production is not only to be looked for in high-priced goods, in which much cost of labour and skill has been employed, but they encourage the exhibition of low-priced fabrics, when combining quality with lowness of price, or with novelty of production. They can readily conceive that Juries will be justified in giving the same class medal to the cheapest calico print, made for the Brazilian or other South American market, as they would to the finest piece of *mousseline de soie* or *mousseline de laine*, if each possessed excellence of its own kind.

In selecting the Juries who are ultimately to guide them in making their award, the Commissioners will take the greatest pains to secure the services of men of known ability to form a judgment, above the sus-

picion of either national or individual partiality (for which purpose they will be composed partly of Englishmen, and partly of foreigners;) and who may be expected to recognize and appreciate merit wherever it may be found, and in whatever way it may show itself.

No competitor for a prize in any section will be allowed to act upon a Jury to award the prizes in that species of article in which he is a competitor.

The names of persons selected to act on these Juries will be published when decided upon.

All persons, whether being designers or inventors, the manufacturers or the proprietors of articles, will be allowed to exhibit; but they must state the character in which they do so. They may also state the names of all or any of the parties who have aided in the production. In awarding the prizes, however, it will be for the Juries to consider, in each individual case, how far the various elements of merit should be recognized, and to decide whether the prize should be handed to the exhibitor, or to one or more of those who have aided in the production.

Lastly, the Commissioners, in announcing their intention of giving medal prizes, do not propose altogether to exclude pecuniary grants, either as prize of successful competition, or as awards under special circumstances, accompanying, and in addition to the honorary distinction of the medal. There may be cases in which, on account of the condition of life of the successful competitor (as, for instance, in the case of workmen,) the grant of a sum of money may be the most appropriate reward of superior excellence; and there may be other cases of a special and exceptional nature, in which, from a consideration of the expense incurred in the preparation or transmission of a particular article entitled to a prize, combined with a due regard to the condition and pecuniary circumstances of the party exhibiting, a special grant may with propriety be added to the honorary distinction. The Commissioners are not prepared, for the present at least, to establish any regulations on these heads. They consider it probable that a wide discretion must be left to the Juries to be hereafter appointed in respect to the award of money prizes, or the grant of money in aid of honorary distinctions; it being understood that such discretion is to be exercised under the superintendence and control of the Commission.

Articles marked "Not for competition" cannot be admitted.

J. SCOTT RUSSELL,

STAFFORD H. NORTHCOTE.

PALACE OF WESTMINSTER, July 29, 1850.

CLASSIFICATION OF THE EXHIBITION.

The Articles exhibited will be divided into Four Sections :

SECTION I. Raw Materials and Produce—illustrative of the natural productions on which human industry is employed.

SECTION II. Machinery for Agricultural, Manufacturing, Engineering, and other purposes, and Mechanical Inventions, illustrative of the agents which human ingenuity brings to bear upon the products of nature.

SECTION III. Manufactures—illustrative of the result produced by the operations of human industry upon natural produce.

SECTION IV. Sculpture, Models, and the Plastic Art generally—illustrative of the taste and skill displayed in such applications of human industry.

Articles belonging to one Section, may be admitted to another, where they may be considered necessary; but in such cases for illustration only.

SECTION I.—*Raw Materials and Produce.*

Under Raw Materials in this Section are to be included all the products of the Mineral, Vegetable, and Animal Kingdoms, either in an entirely Raw State, or in any Stage of Preparation, previous to arriving at the state of a Finished Manufacture (as in Section III.) They are classified according to their uses to man, in their original state, and in their Chemical and Mechanical transformations.

(A.) MINERAL KINGDOM.

1. Used in Metallic Manufacture.

- (a.) *Ores and Modes of Dressing.*—Native Metals, or Metallic Ores,—the Modes of Dressing, such as crushing, stamping, jiggling, buddling, or otherwise rendering them merchantable; as in the cases of Antimony, Arsenic, Bismuth, Cadmium, Cobalt, Copper, Gold, Iron, Lead, Mercury, Nickel, Palladium, Platinum, Silver, Tin, Zinc, &c., &c.
- (b.) *Metallurgical Processes.*—The various Methods of Roasting and Smelting the Ores, so as to illustrate Processes. Fluxes, Slags, and other Materials which may serve the purposes of illustration. The various Processes used in adapting Metals for particular purposes, as for making Iron into Cast-iron, Malleable Iron and Steel, &c., &c.
- (c.) *Alloys*—Bronzes of various kinds, such as Statuary, Gun, Bell, and Speculum Metal, Britannia Metal in Brass of different kinds, German Silver, Argentine, and other varieties of White Metal, Pewter, Type Metals, Sheathing Metal, Compounds of Metals with Phosphorus, and other Non-metallic bodies, &c., &c.
- (d.) *Metals in process of adaptation to Finished Manufactures.*—Rolled and Drawn in Sheets, Wires, &c., and Cast in Pigs, Bars, &c., Plated and Electrotyped Metals, &c.

(A.) CHEMICAL SUBSTANCES EMPLOYED IN MANUFACTURES.

(a.) *Non-Metalic Substances*.—Such as Carbon in its various states for the purposes of fuel, Charcoal, Coke, Bituminous Coal, Anthracite, Lignite, Artificial fuels, Products of distillation of Coals, Mineral Oils and Naphtha, Phosphorus in its different states; Sulpher, as in Manufacture of Sulphuric Acid, &c., Muriatic Acid, Nitric Acid Boracic Acid; &c., &c.

(b.) *Alkalir, Earths, and their Compounds*.—Such as *Potash and its Salts*, as Carbonate, Sulphate, and Chlorate of Potash; Nitre native and artificial, the latter as made in Asia, France, Switzerland, Sweden, and as used for Gunpowder, &c.—*Soda and its Salts*, as Common Salt and its various modes of preparation, Nitrate of Soda, Borax, Soda Ash, and Carbonate of Soda native and as prepared either from Salt, Barilla, or Kelp, and as used for soap or glass-making, &c.; Sulphate of Soda, &c.;—*Lime and its Compounds*, as Limestone, Chalk, Marbles, Mortars, and Hydraulic Limestone, Cements, Materials for Frescoes, Plaster of Paris, Gypsum, Alabaster, Bleaching Powder, &c.—*Magnesia*, and the materials for preparing it and its Salts;—*Barytes*, as Sulphate of Barytes; *Strontia* for coloured fires, &c.;—*Alumina*, as Alum Slate, Alum, Sulphate of Alumina, &c.

(c.) *Metals Proper, and their Compounds*.—Such as *Iron and its Salts*, Iron Pyrites for Green Vitriol, Colcothar, Ochre, Venitian Red, or as used for calico-printing and dyeing, Sulphate of Iron as used for making Sulphuric Acid, &c.;—*Copper*, as Acetate and Sulphate of Copper, as used for colors and dyeing, for electrotyping, &c., Verdigris, Scheele's Green Verditer, Carbonate of Copper, &c.;—*Zinc and its Salts*, Zinc Paint &c.;—*Tin and its Compounds*, as Salts of Tin, Stannates, Oxymuriate, &c.;—*Lead*, as White Lead, Acetate and Nitrate of Lead, Naples Yellow, &c.—*Chromium*, as Chrome Ore, Chromates of Potash, Yellow and Orange, Chromate of Lead, Oxide of Chromium for colours, as for glass, pottery, &c.;—*Arsenic*, as Scheele's Green, Orpiment, Realgar, &c.;—*Antimony*, as Sulphuret of Antimony for percussion powder, lucifer-matches, &c.;—*Bismuth*, as pearl white, &c.;—*Cobalt*, as Oxide of Cobalt for pottery colors, Smalt blue, &c.;—*Nickel*, for glass-staining, &c.;—*Tungston*, as the Yellow Oxides, Tungstates, for dyeing, &c.;—*Mercury*, as for philosophical instruments, silvering mirrors, &c.;—*Gold, Platinum, Silver, and the other noble metals*, their preparations for electrotyping, giving of metallic lustres, &c., &c.

(d.) *Mixed Chemical Manufactures*.—Such as Soap, Prussiate of Potash and Prussian Blue, Ultramarine, &c., &c.

(B.) CHEMICAL SUBSTANCES USED IN MEDICINE.

(a.) *Non-Metalic Substances*.—As Iodine, Bromine, Chlorine, Sulphur, Phosphorus, Charcoal, and their compounds, &c.

(b.) *Alkalies, Earths, and their compounds*.—As Carbonates, Chlorides, Sulphates, Nitrates, Phosphates, &c., and other compounds of Potash, Soda, Lime, and Magnesia, &c., &c.

(c.) *Metallic Preparations*.—As Calomel, Corrosive Sublimate, Red Oxide, and Bisulphuret of Mercury, and other compounds; Salts of Silver, Copper, Iron, Antimony, Zinc, &c., &c.

(B.) RARER SUBSTANCES MANUFACTURED CHIEFLY FOR THE USE OF THE SCIENTIFIC CHEMIST.

Iodine, Bromine, Selenium; Potassium, Sodium, and other rare Metallic Bases, and their compounds, &c.

(A.) GLASS.

(a.) *Coarser Materials used in Glass-making.*—As Sand, Chalk, Carbonates of Soda and Potash, Sulphate of Soda, Gypsum, Common Salt, Rock Salt, Soapers' Waste, Gas Lime, Lime, Clay, &c., &c.

(b.) *Colours and Chemical Materials used in further processes of Glass-making.*—As compounds of Arsenic, Antimony, Boracic, Acid, Borax, Barites, Copper, Chromium, Cobalt, Gold and Iron, Litharge, Red Lead, Oxides of Manganese, Nickel, Uranium, Silver, Saltpetre, Smalt Blue, Phosphate of Lime, &c., &c.

(c.) *Various kinds of Glass used for Manufactures.*—As Soluble or Water Glass, Crown, Window, and Mirror; Crystal, Flint, and Strass Glass; German Sheet and Plate Glass; Glass for Optical and for Laboratory purposes; Colored and Stained Glass, Enamel, Aventurin, Glass for Artificial Gems, &c., &c.

(B.) PORCELAIN AND POTTERY.

(a.) *Materials used, and the modes of dressing and preparing them for use.*—As Kaolin, Cornish Stone, Plastic Clays, Sand, Quartz, Flints, Felspar, Chalk, Gypsum, Soda, Potash, Salt, Alum, Borax, Bone Ash, Peroxide of Tin, Oxides of Lead, Cobalt, Nickel, Chromium, Iron, Copper, Manganese, &c., &c.

(b.) *Finer kinds, as used for Manufacturing purposes.*—As Porcelain, hard and tender, Earthenware, Stone Ware, Flint Ware, Fayence, Delft Ware, Ironstone China, &c., &c.: Materials and Processes illustrating, the mixing, moulding, pressing, drying, glazing, coloring printing, staining painting, and gilding, &c.

(c.) *Coarser kinds, as used for Manufacturing purposes.*—As Materials for Bricks, House, and Field Draining Tiles and Pipes, Common Jars, Bottles, Pans, &c., &c.

4. Stone and Mineral Substances for Building Implements & Decoration.

(a.) *Employed in Architecture and Engineering.*—Granites, Sandstones, Limestones, Serpentines, Porphyries, Marbles, Bricks, Tiles, Earthen Tubes, Artificial Stones, Plasters, Cements, Earths, Pounded Rocks, and other Paints made with simple natural substances, &c., &c.

(b.) *Implements.*—Grindstones, Chert, Honestones, Diamonds, Rubies, Emery, and other hard Minerals for cutting gems, less valuable minerals and glass, or as used in the construction of watches, &c., &c.

(c.) *Personal Decoration.*—Gems of all kinds, and all varieties of Mineral Substances used for decoration, as Agates, Cornelians, Onyxes, Lapis Lazuli, &c., &c.

(B.) VEGETABLE KINGDOM.

1. *Substances used chiefly as Food, or in its preparation.*

I. Agricultural Produce.—Cereals, Pulses, Oil Seeds, &c.

II. Dried Fruits and Seeds.

III. Substances used in the preparation of Drinks.

IV. Spices and Condiments.

V. Starch Series.

VI. Sugar Series.

VII. Fermented Liquors and Distilled Spirits from unusual sources.

VIII. Gum Series.

IX. Resin Series.—Resins and Balsams, Gum Resins, Gum Elastic.

X. Oil Series.—Volatile Oils, Drying Fat Oils, Non-Drying Fat Oils, Solid Oils, Wax.

XI. Acids.

2. *Materials used chiefly in the Chemical*

ical Arts, or in Medicine.

3. Materials for Building, Clothing &c.

4. Miscellaneous Substances.

XII. Dyes and Colours.
 XIII. Tanning Substances.
 XIV. Intoxicating Drugs.
 XV. Medicinal Substances.
 XVI. Fibrous Substances—Cordage and Clothing Materials.
 XVII. Cellular Substances.
 XVIII. Timber and Fancy Woods, for construction and ornament, and prepared by dyeing, &c.

XIX. Miscellaneous Substances not elsewhere enumerated.

(C.) ANIMAL KINGDOM.

1. Substances used as Food.

Almost every part of almost every species of Animal serves as food to some variety or other of the human race. Preparations of Food as examples of Industrial Products, for the Exhibition, would comprise.—Specimens of Preserved Meats, for long voyages; Portable Soups; Concentrated Nutriments; Consolidated Milk, &c.; Dried Gelatine, Isinglass, and Albumen; Caviare; Trepang; Sharks' Fins, Nests of the Java Swallow, and the like Articles of Eastern Commerce; Honey and its Preparations.

2. Substances used for Medicinal Purposes.

Cod Liver and other animal Oils, for internal or external application.
 Unguents of Spermaceti, Lard, Oil, and combinations of these.
 Musk, Castoreum, Civet, Ambergreis (as Antispasmodics.)
 Phosphorus and Ammonia (from Bones, Hartshorne, Urine.)
 Crabs' Eyes, or the Calcareous Concretions formed in the Crawfish; and Cuttlebone used as antacids.
 Cantharides, and their essence Cantharidine.
 Iodine (obtained from Marine Zoophytes and Sponge.)

(a.) FOR TEXTILE FABRICS AND FOR CLOTHING.

Wool, Hair, Hairbands and Ropes; Bristles, Whalebones.
 Silk from the Silkworm, *Bombyx Moi*, and from other species in India e. g.
Bombycilla Cynthia and *Attacus Paphia*.
 Feathers, Down, Fur.
 Skins, Hides, Leather.
 Elytra or Beetle wings (for ornaments of dress.)
 Byssus, from the Pinna Shell Fish (manufactured into gloves.)

(b.) FOR DOMESTIC OR ORNAMENTAL PURPOSES, OR FOR THE MANUFACTURE OF IMPLEMENTS.

Bone, Horn, Hoofs, Ivory, Tortoise-shell, Shagreen, Parchment, Vellum, Quills.
 Pearls (*meleagrina margaritifera*, *Unio. Margaretifera*); Seed Pearl, (*Mutilus dulis*).
 Coral.
 Oils, Tallows, Spermaceti, Wax, Lard.
 Silkworm Gut.
 Mother of Pearl (Shells of *Meleagrina*, *Haliotis* and *Turbo*) Buffalo Shell, Bombay Shells, Black Shells, White-edge Shells, Yellow-edge Shells, Flat Shells, Green Snail Shells.
 Sponge, Goldbeaters Skin, Catgut, Bladders.

(c.) AS AGENTS IN THE MANUFACTURE OF VARIOUS ARTICLES.

Glue, Isinglass, Gelatine.
 Bone Black, Ivory Black, Animal Charcoal.

(d.) FOR THE PRODUCTION OF CHEMICAL SUBSTANCES.

Bones, &c., (for Phosphorus, Ammonia, Cyanides, &c., &c.)

(e.) FOR PIGMENTS AND DYES.

Cochineal, Carmine, from the *Coccus cacti*; Dyes from the Galls of Aphides; Gall Stone Pigment from Ox Gall; Lac, a substance obtained from an Indian Species of *Coccus*, and the varieties called in commerce *Stick Lac*, *Seed Lac*, *Lump Lac*, *Shell Lac*, *Lac Lake*, *Lac Dye*; Sepia; Essence D'Orient, from Scales of Bleak (*Leuciscus*) used in the manufacture of Artificial Pearls.

SECTION 2.—Machinery.

(A.) Machines for Direct Use.

1. *Prime Movers.* { As Boilers and Furnaces for generating Steam, Steam Engines, Waterwheels and other Hydraulic movers, Windmills, other Engines for generating Power, &c.

2. *Separate parts of Mechanism and Gearing.* { As Toothed Wheels, Link-work, Belts, Couplings, contrivances for modifying motion, for reversing and stopping, and for the government and self-action of Machinery, &c. Specimens of perfection in workmanship—such as straight edges, flat surfaces, screws, spheres, &c.

3. *Machines for Raising and Moving Bodies.* { RAISING WATER and OTHER LIQUIDS—As Pumps, Fire-Engines, Hydraulic Rams, &c. RAISING AND MOVING WEIGHTS, AND PRODUCING PRESSURE—Such as Crabs, Cranes, Travellers, Screw Jacks, Hydraulic Presses, Pile Drivers, &c. CARRIAGES AND VEHICLES. MACHINERY OF THE RAILWAY SYSTEM. NAVAL MECHANISM, AND NAVAL ARCHITECTURE.

4. *Machines for Weighing, Measuring, and Registration.* { As Weighing Machines of all kinds, Apparatus for the Measurement of Length and Capacity, for the Registration of Natural Phenomena, and of the results and operations of other Machinery—as Tide Gauges, Anemometers, Calculating Machines, Tell-tales, Counting Machines, Numbering Frames, Copying Machines, Dynamometers, &c. TURRET AND OTHER CLOCKS, WATCHES, AND CHRONOMETERS.

5. *Instruments and Miscellaneous Contrivances.* { MATHEMATICAL AND PHILOSOPHICAL INSTRUMENTS—As Astronomical and Optical Instruments, Apparatus for the Graduation and Division of Lines and Circles: Physical and Chemical Apparatus, including Electric, Magnetic, and Galvanic Apparatus, &c. DRAWING INSTRUMENTS AND APPARATUS USED BY ARTISTS AND ENGRAVERS. MUSICAL AND ACOUSTICAL INSTRUMENTS—As Organs Pianofortes, Harps, Flutes, Imitation of the Human Voice, Singing and Speaking, &c. SURGICAL INSTRUMENTS. LOCKS, and small Machines for Miscellaneous Purposes.

6. *Guns, Pistols, &c.* { And all that belongs to their equipment.

7. *Agricultural Machinery.* { FIELD IMPLEMENTS—As Ploughs, Sub-soil Plough, Skim Plough; Harrows, Norwegian Harrow, Clod Crusher, Grubber, or Scarifer; Corn Drill, Turnip Drill, Water Drill, Dry Manure Machine, Liquid Manure Machine, Horse Seed Dibbler, Roller, Presser, Horse Hoe, One Horse Cart, Horse Rakes, Haymaking Machines. YARD IMPLEMENTS—Threshing Machine, Corn Dressing Machine, Chaff Cutter, Turnip Cutter, Cake Bruiser, Corn Bruiser; Moveable Steam Engine; Tile Machines, Draining Tools. GARDEN IMPLEMENTS.

(B.) MANUFACTURING MACHINES.

Or Systems of Machinery, Tools, and Implements employed for the undermentioned purposes.

1. *Manufacture of all Fabrics that are Spun, Woven, Felted, or Laid.* Machine for the complete formation, from the Raw Material of all fabrics of Cotton, Wool, Flax, Hemp, Silk, Caoutchouc, Hair, &c.
Paper Making and Staining.
Printing and Bookbinding.
2. *Manufactures of Metal.* The Manufacture of Metals from the ore into bars, rods, wire, sheets, and other general forms; also, casting and polishing of Metal, Glass, &c.
The Cutting and Working of Metals by Machine Tools—such as Lathes, Machines for planing, drilling, boring, slitting, sawing, stamping, shearing, rivetting, punching, &c.
3. *Manufactures of Mineral Substances.* Machines and Tools used by the makers of Gold, Silver, and Plated Goods; Cutlery Nails, Screws, Pins, Needles, Buttons, and Metallic Pens, &c.; by Locksmiths, Die Sinkers, Furnishing Ironmongers, &c., &c.
4. *Manufactures of Vegetable Substances.* Machines and Tools for the Preparation and working of all kinds of Wood.
MILLS, and other Machinery for grinding, crushing, or preparing Vegetable Products.
5. *Manufactures of Animal Substances.* Machinery and Tools for Working in Horn, Bone, Ivory, Leather, &c.
6. **MACHINERY AND APPARATUS FOR BREWING, DISTILLING, AND MANUFACTURING CHEMISTRY.**

(C.) MODELS OF ENGINEERING STRUCTURES.

Exhibiting the Application of Mechanical Contrivances.

1. MODELS OF BRIDGES, VIADUCTS, ROOFS OF LARGE SPAN, in Stone, Wood, Iron, &c.
2. MODELS OF DOCKS, LOCKS, LIGHTHOUSES, BREAKWATERS, HARBORS, LANDING PIERS, &c.

SECTION 3.—MANUFACTURES.

Manufactures to be exhibited in this Section must be in their *Finished* state, as fit for use.

1. FABRICS. SPUN AND WOVEN.	From Flax, Hemp, Cotton, and similar Vegetable Substances..... From Wool and Silk and similar animal Substances..... 	as From Fur and Hair, and similar animal Substances..... From Rags and Fibre and similar Vegetable Substances.	Goods, Plain and Figured in the Loom; also Printed, Colored, or Embossed including— LINENS, CANVAS —Floor Cloths, Calicoes &c.; Oil Cloths of all kinds; also, Lace, Bobbinet, Figured Lace, Needlework, Embroidery, Tambouring, &c. BROAD CLOTHS —Blankets, Carpets, Shawls, Damasks, Satins Velvets, Stuffs, Poplins, Cabinets, Crapes. FELTS, HATS —Felted Floor Cloths, and Felted Fabrics generally, Plain or Printed, Colored and Embossed. PAPERS of all kinds, Plain and Ornamental Paper-hanging & Decorations Cards Pasteboard &c.
--	---	--	--

2. MANUFACTURES IN METALS.	Gold and Silver Copper and Zinc Iron, Steel, Lead, Bronze, Pewter, Mixed Metals.	as	Gold and Silver Plate, and Jewelers' Work, Metal Ornaments, Metal Mountains, Buttons, Locksmiths' Work, Wire Work, General Ironmongery, Fenders and Grates and Fire irons, Bronze Lamps, Britannia Metal Wares, German Silver and White Metal, Cutlery and Steel Ornaments.
3. MANUFACTURES IN GLAS, PORCELAIN, TERRA COTTA, and EARTHENWARE of all kinds &c.			
4. MANUFACTURES FROM VEGETABLE SUBSTANCES—Wood, Straw, Hemp, Grass, Caoutchouc Gutta Percha.....		as	Cabinet Work and Household Furniture, Turnery, Baskets, Mats, and matting, Cordage and Cables, Straw Plait, Utensils of every kind in Caoutchouc and Gutta Percha, Coopers' Work, &c.
4. MANUFACTURES FROM ANIMAL SUBSTANCES—Ivory, Bone, Horn, Parchment, Leather, Shell, Hair, Feathers, and Bristles.....		as	Handles and Utensils of Horn Ivory, and Bone; Bookbinding, Leather Cases, Trunks, Harness, Boots and Shoes, Brushes, &c.
6. SMALL WARES AND CHEMICAL COMPOUNDS.....			Umbrellas, Garments, Artificial Flowers, Fringes, Gimps, Beads, and Toys; Confectionary, Soap, Candles, Sealing Wax and Wafers, &c.

SECTION 4.—SCULPTURE, MODELS, AND THE PLASTIC ART.

Objects formed in any kind of material, if they exhibit such a degree of taste and skill as to come under the denomination of *Fine Art*, may be admitted into this Section.

1.—SCULPTURE AS A FINE ART.	((a) In METALS, whether simple, as Gold, Silver, Copper, Iron, Zinc, Lead; or compound, such as Bronze, Electrum, &c. (b) In MINERALS, whether simple, as Marble Stone, Gems, Clay, &c.; or in materials elaborated from them, as Glass, Porcelain. (c) In WOODS AND OTHER VEGETABLE SUBSTANCES. (d) In ANIMAL SUBSTANCES, such as Ivory, Bone, Shells, Shell-Cameos.
-----------------------------	--

2.—DYE SINKING, INTAGLIOS, AND MEDALS.

3.—ARCHITECTURAL DECORATIONS.	Whether INTEGRAL in Relief, Color, or ADVENTITIOUS, as Stained Glass, Tapestry.
-------------------------------	---

4.—MOSAICS AND INLAID WORK.....	In Stone, Tiles, Vitrified Materials, Wood Metal.
---------------------------------	---

5.—ENAMELS.....	On Metals, China, Glass.
-----------------	--------------------------

6.—MATERIALS AND PROCESSES APPLICABLE TO THE FINE ARTS GENERALLY, including Fine Art Printing, Printing in Color, &c., &c.	
--	--

7.—MODELS.....	In Architecture, Topography, Anatomy.
----------------	---------------------------------------

SPECIAL INSTRUCTIONS IN SECTIONS.

SECTION I.—RAW MATERIALS AND PRODUCE.

DIVISION (A.)—Mineral Kingdom.

It is desirable that the Raw Materials should be shown in connexion with the produce of the Mineral Kingdom so as to form a history and explanation of the processes employed to fit them for the useful and ornamental purposes of life. The Exhibition would thus comprehend.

Illustrations of the various modes of extracting and preparing the *Raw Materials* for Produce.

Illustrations of methods of reducing, working, or combining Raw Materials, so as to obtain *Products* which may afterwards receive applications to the useful or ornamental purposes of life.

The Specimens fitted for exhibition should include only those remarkable for their *excellence* for *novelty* in their occurrence or application, or *economy* of their extraction or preparation; or,

Those remarkable as *illustrations* of some further processes of Manufacture.

DIVISION (B.)—Vegetable Kingdom.

The objects which the Commission is most desirous of receiving, among the products of the Vegetable Kingdom, are such as from their utility, novelty, or practical interest may appear especially deserving public attention. Peculiarly fine samples of substances in common use; authenticated samples of substances having similar properties, but derived from different sources—such as arrowroot, Sago, &c. Dyeing Materials, accompanied by specimens exhibiting the effect of such Materials. Fancy Wood, both in the polished rough, and manufactured state. All sorts of materials, which are applicable to the manufacture of linen, cordage, wicker-work, paper, and the like.

DIVISION (C.)—Animal Kingdom.

As Illustrations in this Division, the various Processes of preparation may be exhibited in connexion with the Raw Materials; and a Finished Article may be introduced as the termination of a series of objects in preparatory stages.

SECTION II.—MACHINERY.

DIVISION (A.)—Machines for Direct Use.

Machines will be exhibited in motion, whenever it may be desirable to do so, and it may be found practicable to provide the necessary arrangements for that purpose.

DIVISION (B.)—Manufacturing Machines.

Although in arranging this class for exhibition it will generally be found advisable to separate the Products from the Producing Mechanism; yet the latter should always be accompanied with sufficient specimens of the Raw Material, in its several stages of manufacture, and of the finished product, to make the operation of the Machinery intelligible.

The complete series of tools and machinery that belongs to the manufacture of any object of common use, such as a watch, a button, or a needle, accompanied by specimens of the object and its parts, in their various stages of progress, is so instructive and interesting, that it is very desirable to obtain several such series for the proposed Exhibition.

SECTION III.—MANUFACTURES.

Manufactures to be exhibited in this Section must be in their *Finished* state, as fit for use.

SECTION IV.—SCULPTURE, MODELS, AND THE PLASTIC ART.

Objects formed in any kind of material, if they exhibit such a degree of taste and skill as to come under the denomination of *Fine Art*, may be admitted into this section.

The specimens exhibited shall be works of living artists, or works of artists, deceased within three years before the 1st of January, 1850.

Oil Paintings and Water Colour Paintings, Frescoes, Drawings, and Engravings, are not to be admitted, except as illustrations or examples of materials and processes; and Portrait Busts are not to be admitted.

No single Artist will be allowed to exhibit more than three works.

The following Circular to persons in the United States interested in the Industrial Exhibition, was submitted by the Secretary, and, with the other papers communicated, referred to the Executive Committee for publication:

WASHINGTON, September 16, 1850.

The Central Committee of the United States on the Industrial Exhibition to be held in London in May, 1851, beg leave to invite the attention of the Governors of the several States, of the local committees by them appointed, and of their fellow citizens generally, to the interesting subjects involved in this great concourse of the industry of nations, and to the peculiar aspects under which it addresses itself to the skilful and industrious of all classes in the United States.

This Committee cannot but view this great exposition of human industry and productive skill, as one in which every nation on the globe has a direct and positive concern. Its results and its history, will go down to future generations, marking the actual state of arts and civilization in the middle of the nineteenth century. It will stand as at once an evidence and index of the progress which the humanizing arts of peace have made, and are now making in every Empire and Republic, Kingdom, Principality, and Province of the world.

The productions of American industry, which will be entitled to places in the Exhibition, are not limited to articles of manufacturing, mechanical, or any other single department of labor or of skill. The farm, the garden and the dairy, the forest and the mine, the factory and the workshop, the laboratory and the studio, will all be entitled to their respective positions; and it is earnestly hoped that no considerations will be allowed to prevent a full and honorable representation of every department of our natural resources, ingenuity, and industry.

To convey some impression of the number and variety of objects

which America is capable of furnishing to the Exhibition, we may be permitted to enumerate a *few* of the prominent classes.

Among animal substances, it is believed that samples of beef, pork, hams, butter and cheese, wool and hair, feathers, down and fur, lard and lard oil, stearine candles, honey and wax, spermaceti, skins, hides and leather, with articles manufactured from the same, may all be with advantage sent from the United States. Many of our dealers in provisions can now demonstrate that they understand how to cater for the most refined taste, as well in the style of putting up, as in the intrinsic qualities of their articles.

Among vegetable productions we shall not forget to send samples of wheat, flour, Indian corn, cotton, rice, tobacco, hemp and cordage, the starch of wheat, of potatoes, and especially of Indian corn; sugars of both cane and maple, raw and refined; timber, and articles manufactured therefrom, especially when made in large quantities and by machinery. By taking longitudinal and transverse slices or sections one or two inches in thickness from the trunks of trees, we may at little expense send the most striking proofs of our forest riches. The sycamore and whitewood of Kentucky, the cypress of Mississippi and Louisiana, the live oak of Florida, the pine of Carolina, Maine, Minnesota, and Oregon, the oak, hickory, cherry, and black walnut of numerous States, the cedar and locust so famed for resisting decay, the hickory so tough and durable, the ash so light and yet so elastic, the bass wood, adapted for coach and car bodies, the birds-eye maple for ornamental furniture, with multitudes of others, may by this means be displayed with surfaces smooth or rough, varnished or unvarnished, and form a novel and striking feature of the exhibition. Will not some of our enterprising lumbermen take this great department in hand? In making cross sections of trees the bark should be carefully retained when practicable.

Among mineral substances which ought certainly to appear at the exhibition, are iron ores in all their varieties, from that of the iron mountain of Missouri to the rich veins of Georgia, Carolina, Virginia, Pennsylvania, New York, Vermont, New Hampshire, Maine, and numerous other States. The cobalt and lead of Missouri, Iowa, and Wisconsin, the chrome of Maryland, the zinc oxides of New Jersey and Missouri, the plumbago of North Carolina and of Pennsylvania, are a few of the coloring materials which ought to attract notice and win approbation. Stones used for building and other useful and ornamental purposes, should not be omitted, particularly such as excel in firmness, fineness of texture, purity, durability, and a susceptibility of high polish.

The gold and mercury of California, the silver of North Carolina, the copper of Michigan, the manufactured iron of many States, will evince our abundance in both the useful and the precious metals; and among articles manufactured from metals, we may send numerous varieties of cutlery, edge tools, surgical instruments, augers, scythes, axes, drawing knives, hoes, shovels, butt hinges, door springs, sash and shutter fasteners, locks and latches, rifles, revolvers, bowie knives, gold pens, ever pointed pencils, clocks, chronometers, astronomical and other telegraphs.

We must have ploughs and cultivators, reaping, cornshelling, thrashing and winnowing machines. Nor must we forget to show how we save labor and diminish toilsome drudgery, by our card making machines, our screw machines, pin machines, hook and eye machines, nail and spike machines, and percussion cap machines, as well as by our cotton gins, our dredging machines, our quadruple printing presses, our brick machines, and our leaden pipe and leaden bullet machinery.

We need not fear to show samples of iron castings in hollow ware, of sheet, bar or railroad iron, of stoves, furnaces for house-heating, or ranges for cooking with anthracite, bituminous coal, or other fuel. Even in gilded, bronzed, and other ornamental work in metals, in chased and burnished silver ware, we have workmen who may satisfy the most fastidious European taste. If not too urgently engaged in filling orders at home, it is earnestly hoped that our manufacturers, of mathematical, philosophical and optical instruments will put before the discriminating eyes at London, a few specimens of their handiwork.

In connection with our metallurgic industry, we must not forget the mineral fuel by the aid of which it is prosecuted. Our numerous varieties of anthracite, semi-bituminous, highly bituminous and cannel coals, must be made to prove how far the markets of the world as well as our own manufactures, navigation, and locomotion, can be supplied from the coal mines of the United States.

Machinery for working in wood, as shoe-last and gun-stock machines, bucket machines, sash and blind machines, box and match machines, with numerous forms of sawing, planing, matching and stave-dressing machines, would evince the fertility of invention among our workers in this class of substances.

Among textile fibrous manufactures we shall be able to offer cotton goods, plain and figured in great variety, together with cordage and canvass of the same material, as well as of American hemp. Among the woollen and mixed goods, woven wholly by power looms of American invention, we shall be expected to send Brussels carpets, ingrain and tapestry carpets, of various patterns.

In reference to our maritime architecture and nautical skill, in general, with all the details of equipment, perhaps no better evidence could be offered than would be given by freighting some suitable public vessel, with American contributions to the Exhibition, for the purpose of conveying them to England, and this is perhaps the only way in which the Government, as such, could give effective aid to the objects of our present undertaking.

To the foregoing very brief sketch of a few objects to which attention may be beneficially directed, we may add, that a due discrimination will no doubt be exercised, in respect to the classes of objects as well as the individual specimens which ought to be sent to the exhibition. It is for this reason, that this Central Committee has invoked, through the Governors of the several States, the aid of local committees having direct cognizance of the merit of the articles proposed to be exhibited.

It is earnestly requested that all committees designated in the several States should enter with as little delay as possible on the discharge of their duties, that they should give to exhibitors all needed advice and information, as to the suitableness or unsuitableness of the articles, the proper quantity to be forwarded, the means of conveyance and the agencies either in this country or England, by which the proper care will be taken of their packages.

Where it is probable that all the four divisions of articles, viz: **RAW MATERIALS and PRODUCE, MACHINERY, MANUFACTURES, SCULPTURE** and the **PLASTIC ARTS**, will be brought forward for approval, the local committees would doubtless find it advantageous to divide themselves into sub-committees with a view to assign to each sub-committee one of these great departments, not precluding joint consultation on points of difficulty or of special importance.

It cannot be too earnestly impressed on the minds of all local committees, that to whatever class of the exhibition objects may pertain, they ought, in order to warrant their being sent forward, to possess the merit of either *novelty, rarity, or high excellence*.

They ought to represent in some one or other of its departments, either our national industry and ingenuity, or the natural resources on which they are employed.

It will contribute much to the facility of forwarding goods to the exhibition to form depots in our principal seaports, as at New Orleans, Charleston, Baltimore, Philadelphia, New York and Boston, where the articles may be conveniently stored until the time of sending them to London. They should not be shipped so as to arrive before the first of January 1851, and cannot be exhibited if received at London later than

the first of March following. Every package must be entered on a suitable bill of lading, and be accompanied by a certificate from the central authority of the United States, attested by the proper officer approving of the transmission of the object therein contained, to the care of the British Commissioners.

The form of a return for an exhibitor is hereunto annexed, in which the amount of space, vertical or horizontal, is to be set forth.

The accompanying letter under date of 5th of August, 1850, and the circular to which it relates, addressed by the Royal Commission to the various commissions abroad, to which are annexed the several proposals made by agents in the different ports of England, together with the "information for the use of foreign exhibitors," and the article "on the prizes and juries," which bears date July 29th 1850, will give, it is believed, all needed information to American exhibitors, in respect to the conditions and circumstances of the exhibition.

In conveying articles from the place of production to that of embarkation for England, it is hoped that steamboat and rail-road companies in the United States will treat American exhibitors with the same liberality which has been manifested abroad, where goods destined to the exhibition are conveyed free of charge.

The following extract of a letter from J. James Greenough, Esq., a member of this Central Committee of the United States on the Industrial Exhibition, now in London, was read by the Secretary.

MORNING JOURNAL
"LONDON, 19th August, 1850.

"PROF. W. R. JOHNSON:

"DEAR SIR: There is a point of some difficulty which must in season be provided for. It is this, while the English Commission find us space and shelter for our goods, we must have some person or persons engaged to look after our particular interests. They do not mean to fit up for us, or arrange our goods. They leave that wholly to each country. France has an authorized agent for this business; so has Russia, and the other continental States will follow the example. We shall need to have some one under the sanction of the commission to act here. I am informed by the commission that an offer has been made by some wharfingers here to receive goods from vessels in the Thames in their lighters and deliver them over their wharves free of charge. They must then be taken in some conveyance provided by exhibitors, and conveyed to the place of exhibition, where they are to be opened in presence of an inspect-

ing officer, and they can then be prepared for exhibiting. It is absolutely necessary that this should be done by an interested party who ought to be an American. It has been suggested to me that I should offer my services to superintend this matter, and if the committee will approve of me for that purpose, I will engage to act for all those who will not be present in person, if they consign their articles to my care. It is very important that it be early ascertained what articles will be sent, their probable number, and the space they will occupy. All expenses relating to the transportation and arrangement of articles will have to be defrayed by the exhibitor, or the country from which they are sent.

"Yours, &c.,

J. J. GREENOUGH."

Whereupon it was, on motion, *Resolved*, That this committee regard Mr. J. J. Greenough, a member thereof, now in London, as a person well qualified to take charge of articles which may be sent to the Exhibition; it being distinctly understood, however, that this does not interfere with the employment by exhibitors of any other agent, should they prefer so to do, or to attend in person to the fitting up of their own goods, and that this Central Committee does not render itself responsible for the acts of any agent employed in the services herein referred to, as such services must of necessity be performed after the goods will have passed beyond any control of this committee.

The accompanying form of a return to be filled up by intending exhibitors was presented and ordered to be appended to the printed proceedings.

On motion adjourned.

WALTER R. JOHNSON,

*Secretary of the Central Committee of the United States,
on the Industrial Exhibition.*

The following are the names of the Central Committee on the Industrial Exhibition:

MILLARD FILLMORE, <i>Chairman.</i>	MATHEW F. MAURY,
PETER FORCE,	J. JAMES GREENOUGH,
JAMES A. PEARCE,	CHARLES F. STANSBURY,
LEVI WOODBURY,	J. J. ABERT,
LEWIS WARRINGTON,	JOSEPH G. TOTTEN,
JOSEPH HENRY,	THOMAS EW BANK,
WALTER R. JOHNSON, <i>Secretary,</i>	WILLIAM EASBY,
ALEXANDER D. BACHE,	LEONARD D. GALE,
CHARLES WILKES,	JOSEPH C. G. KENNEDY,
WILLIAM W. SEATON,	EZRA C. SEAMAN.
JEFFERSON DAVIS,	

The following gentlemen constitute the Executive Committee:

PETER FORCE, <i>Chairman.</i>
WALTER R. JOHNSON,
JOSEPH HENRY,
CHARLES WILKES.
JOSEPH C. G. KENNEDY, <i>Secretary.</i>

N. B. Correspondents will please address their communications—

To the CENTRAL COMMITTEE

ON THE INDUSTRIAL EXHIBITION,

Washington, D. C.,

CARE OF

JOS. C. G. KENNEDY, ESQ.,

Superintendent of the Census.

11.10.2002

2002.10.11

2002.10.11

2002.10.11
2002.10.11
2002.10.11
2002.10.11
2002.10.11

2002.10.11
2002.10.11
2002.10.11

30



A CATALOGUE

OF

American

MINERALS, FRESH-WATER SHELLS, FOSSILS,
COALS, ORES, INDIAN RELICS, ETC.

EXHIBITING AT THE

WORLD'S INDUSTRIAL EXHIBITION,

IN LONDON, A. D. 1851,

UNDER THE AUSPICES OF THE STATE OF MASSACHUSETTS, AND WITH
THE SANCTION OF THE CENTRAL COMMITTEE OF THE U. S.

THE COLLECTION OF

DR. LEWIS FEUCHTWANGER, Chemist,

141 MAIDEN LANE, NEW YORK, U. S. A.



NEW YORK:

PUBLISHED FOR THE PROPRIETOR.

1851.

ED
PH



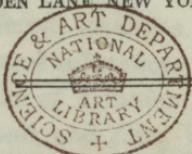
A CATALOGUE
OF
American
MINERALS, FRESH-WATER SHELLS, FOSSILS,
COALS, ORES, INDIAN RELICS, ETC.

EXHIBITING AT THE
WORLD'S INDUSTRIAL EXHIBITION,
IN LONDON, A. D. 1851,

UNDER THE AUSPICES OF THE STATE OF MASSACHUSETTS, AND WITH
THE SANCTION OF THE CENTRAL COMMITTEE OF THE U. S.

THE COLLECTION OF
DR. LEWIS FEUCHTWANGER, Chemist,

141 MAIDEN LANE, NEW YORK, U. S. A.



NEW YORK:

PUBLISHED FOR THE PROPRIETOR.

1851.

26.11.64.

GENERAL SUMMARY.

- A MASS of native Copper, weighing 2,544 lbs., from the W. Mine, Lake Superior.
- A collection of crystalline arboreal native Copper, from Royal, Lake Superior.
- A cabinet of crystalline Gems, native Diamonds, Gold Copper.
- Two cabinets of small Minerals.
- A valuable collection of Trilobites, Mastodon Teeth, blue limestone, and cretaceous fossils, from Alabama.
- An assortment of Anthracite, Bituminous, and Cannel ls.
- A magnificent collection of fresh-water Shells, from the thern and Western rivers.
- A collection of Indian Relics, from the ancient mounds the Mississippi River.
- An assortment of gigantic specimens of Cinnabar, Lead, Iron, Beryl, Quartz, Crystals, and Geodes, Stalactites, &c. Impressions, &c. &c.
- An assortment of polished Marbles, Soapstone, and the of Iron, Copper, Zinc, Lead, Chrome, Manganese, tungsten, &c., from different localities.
- An assortment of mineral substances used in the arts, including Felspar and Oxide of Titanium, for Mineral Teeth, ls of Tungsten, Cobalt, and Zinc, White-sand, and Oil-e.
- A collection of all the new minerals recently discovered in the United States.

PREFACE.

THE undersigned begs most respectfully to present to the Public this Catalogue of his Collection of American Natural Productions, and to state, in a few words, that he has resided, for the last twenty-two years, in the United States of America, during which period many opportunities were afforded him, from the nature of his avocations, as practical chemist and mineralogist, of visiting a great portion of this extensive territory, and to examine, both scientifically and practically, its vast resources. His early attachment to natural sciences, assisted him in cultivating these pursuits, and making collections in the various branches of Conchology, Geology, Mineralogy, and Palæontology. It is now, for the first time, that he exhibits the fruits of his researches to the public, induced by the solicitations of his numerous friends, who seem to think it but an act of justice to the country to disclose its resources. Therefore, in coming forward on the present extraordinary occasion, he does not pretend to appear in competition with the Royal and Public Institutions of Europe; neither does he mean to enter the lists with the wealthy private collectors, who perhaps may not have spared either time or money in obtaining, from every locality, the choicest specimens, but merely with the

hope that his collection will not be found the less interesting from the fact that they are exclusively American productions, and may, in some degree, tend to exhibit to those deprived of the opportunity of travelling on this Continent, the hidden treasures of the United States, and the beneficence of an Almighty Providence, in blessing this country with a profusion of almost every elementary substance, whilst they are found, but in part, in any other portion of the world. Under these circumstances, the subscriber hopes that the scientific community will pardon his apparent vanity in intruding this his imperfect collection on the discriminating observer, and attribute his motives for so doing to the right cause. Amongst his collection will be found many rare specimens, acquiring double interest from the fact that some of them are of recent discovery, and more of them heretofore unknown. The Conchologist as well as the Geologist, the Palæontologist as well as the Mineralogist, may here enjoy a rich treat. In such a large collection, where so many valuable specimens are to be met with, each apparently claiming an equal share of interest, it is difficult to single a few from among the many to bring specially before the observer's notice, yet the subscriber cannot help reverting, with a feeling of pride, to some of the more valuable and curious. Amongst these will be found a mass of Copper, weighing 2,544 lbs., affording a yield of 90 per cent. Also a gigantic specimen of Cinnabar from California, magnificent Quartz Geodes, a specimen of Phosphate and Carbonate of Lead; also a beautiful collection of ores, consisting of Zinc, Iron, Copper, Chromes, Man-

ganese, &c. &c.; likewise specimens of white Felspar, Talc, Soapstone, &c. &c., Beryls of large size, Topaz Rocks, two cabinets of Gems, containing two native Diamonds of $3\frac{1}{4}$ and $2\frac{1}{4}$ carats respectively, some valuable specimens of California Gold, crystals of Copper, Gold, Platina, &c. &c.; and though last, not least amongst the minerals, will be found a specimen of Argentiferous lead, from a mineral district in New Hampshire, occupying an area of 15,000 acres, near the Canadian boundary, and intersected by a line of railway. By the results of his analysis, it yields from 90 to 100 ounces of silver to the ton, and 75 per cent. of lead.

The Conchologist will find himself amply repaid by a careful examination; for in this department are to be found specimens, such as he has seldom if ever met with heretofore; and the Palæontologist will not regret devoting an hour to a careful examination of the Petrifications, Impressions, Trilobites, &c.; whilst the Antiquarian may also derive much pleasure from an inspection of the Indian relics from Natchez Bluffs.

The subscriber will feel most happy to give every information relative to the metallic and non-metallic substances, state their location, per centage, and all other particulars, together with an account of the subterranean productions of every section of the Union, such as Lead, Copper, Zinc, Iron, Cobalt, Manganese, Chrome, Plumbago, Titanium, Tungsten, Sand for glass manufacturers, Clay, Soapstone, Mica, or Talc, Felspar, Novaculite, &c. &c. Samples of all which may be seen on exhibition in the various cases,

corresponding with the numbers in this Catalogue, and orders will be received for the same at the establishment of Messrs. Harnden & Co., Waterloo Road, London, and 6 Cook-st. Castle-st., Liverpool, to whose care all communications for the subscriber, or his agent, Mr. Bigoe Armstrong Stoney, may be addressed; or at any time after the termination of the Fair, by letter addressed to the subscriber, at his office 141 Maiden Lane, New York, U. S. A.

For further information relative to the numerous specimens of valuable gems, minerals, &c., included in his collection, and which will be offered for sale on the closing of the exhibition, the undersigned respectfully refers the reader to this Catalogue.

The Public's most obedient servant,

LEWIS FEUCHTWANGER, M. D.

Chemist and Mineralogist, 141 Maiden Lane.

NEW YORK CITY, FEBRUARY 1, 1851.

SPECIFIC CATALOGUE.

LOT 1.

60 SPECIMENS.

Anthracite Coal.

Bituminous "

Cannel "

LOT 2.

100 SPECIMENS.

Indian relics, consisting of

Oolites,

Agates, large and small,

Fossil woods,

Limonites,

Lime Concretions, &c.]

LOT 3.

20 SPECIMENS.

Fossils from the Trenton Lime-stone formation.

Trilobite in Sandstone.

Calymene.

Asaphus.

Homonolotus.

Orthoceratites, &c.

LOT 4.

25 SPECIMENS.

Same as above, with Fossil woods.

LOT 5.

60 SPECIMENS.

Fossils from the various formations, viz.:

Fucoides Harlani.

Turritella Morton.

Belemnites Americana.

Splendid Crinoidea.

Cyathophyllum.

Pleurotomaria.

Atrypa.

Teeth of Shark

" Hippopotamus.

" Mastodon.

LOT 6.

50 SPECIMENS.

Animal and vegetable impressions in Slate and Sandstone.

Neuropteris.

Pecopteris and Sphaeropteris.

Bird's Foot.

Fish, &c. &c. &c.

LOT 7.

700 SPECIMENS.

400 Cretaceous and blue Lime-stone fossils.

300 Univalve recent shells, viz.: Ampullaria Hoptonensis.

Lymnea Jugularis.

Anchulosa.

Helix.

Melania.

Paludina, &c. &c. &c.

LOTS 8 TO 18, INCLUSIVE.

600 SPECIMENS.

Interesting bivalve fresh-water

Shells, consisting of

Alasmadonta,

Anadonta,

Margaritina,

Unio.

LOT 41.

19 SPECIMENS.

Prehnite.
Nephrite.
Steatite.
Chlorite.
Novaculite.
Beryl, &c.

LOT 42.

16 SPECIMENS.

Zircon.
Corundum.
Kyanite.
Fibrolite.
Nacrite.
Scapolite.
Topaz.
Petalite.
Spodumene, &c.

LOT 43.

24 SPECIMENS.

Ox. Titanium (Rutil).
Ox. Tin.
Ox. Tungsten.
Ox. Manganese.
Chromate Iron.
Emerald Nickel.
Sphene.
Molybdena.
Troostite.
Arkansite.
Schorlomite.
Jeffersonite.
Bismuth, &c.

LOT 44.

13 SPECIMENS.

Native Silver in Native Copper.
Chrysocolla.
Variegated Copper, &c.

LOT 45.

22 SPECIMENS.

Elastic Sandstone.
Fire Opal.
Melanite.
Garnet.
Macle, &c. &c.

LOT 46.

7 SPECIMENS.

Sulph. Barytes.
Chalcedony.
Egeran, &c.

LOT 47.

19 SPECIMENS.

Hematite.
Iron Pyrites.
Copper Pyrites.
Ox. Iron.
Carb. Iron.
Lead, &c.

LOT 48.

10 SPECIMENS.

Catlinite.
Puddingstone, from House of
Representatives at Washington,
&c.

LOT 49.

20 SPECIMENS.

Warwickite.
Masonite.
Vermiculite.
Sillimanite.
Epidote.
Chlorophyllite.
Comptonite.
Fluor Spar.
Analcim, &c.

LOT 50.

19 SPECIMENS.

Wolfram.
Calamine.
Hematite.
Chrome.
Nickel.
Pipe Iron.
Blende, &c.

LOT 51.

16 SPECIMENS.

Garnet.
Tourmalin Black.
" Red.
" Green.
Colophonite.
Selenite, &c.

LOT 52.

5 SPECIMENS.

Splendid black Tourmalin,
Geodes, &c.

LOT 53.

18 SPECIMENS.

Plumbago.
Kyanite.
Fibrolite.
Chabasite, &c.

LOT 54.

15 SPECIMENS.

Cinnabar.
Iron Mountain Ore.
Argentiferous Galena.
Cryst. Galena, &c.

LOT 55.

150 small specimens of Gems
and Minerals, arranged in
Cabinet.

LOT 56.

19 SPECIMENS.

Polished Macles.
Euphyllite.
Picrolite.
Lancasterite.
Moonstone (Adularia).
Mussite, &c.

LOT 57.

24 SPECIMENS.

Chesterlite.
Splendid crystals of Mica.
Sunstone.
Radiated Mussite.
Rhodo Chrome, &c.

LOT 58.

18 SPECIMENS.

Williamsite
Knauerite.
Emeryllite.
Nickel.
Magnesite.
Carb. Magnesia.
Purple Talc.
Yellow Talc.
Octahedral Iron.
Lancasterite, &c.

LOT 59.

14 SPECIMENS.

Splendid Pyroxene.
Lederite.
Zircon.
Baltimorite.
Momolite.
Bucholzite, &c.

LOT 60.

19 SPECIMENS.

Coccolite.
Baltimorite.
Brucite, &c.

LOT 61.

26 SPECIMENS.

Iron Ores.

LOT 62.

10 lbs. Ground Felspar; samples for Potters and Artificial Teeth manufacturers.

LOT 63.

6 SPECIMENS.

15 lbs. Mica, cut in various sizes for stoves, lanterns, &c.

10 lbs. Butil.

4 lbs. Ox. Tungsten.

2 lbs. Ox. Cobalt.

2 lbs. Ox. Zinc.

10 lbs. White Sand, for glass-makers.

LOT 64.

36 SPECIMENS.

Very rare bivalve Shells.

LOT 65.

LOT 66.

LOT 67.

LOT 68.

LOT 69.

LOT 70.

LOT 71.

LOT 72.

LOT 73.

LOT 74.

LOT 75.

LOT 76.

LOT 65.

18 SPECIMENS.

Agatized and Fossil Woods.

Crystals of gray Copper.

Acicular sulph. Pyrites.

Yenite.

Chalcedony, &c.

LOT 66.

60 SPECIMENS.

Valuable Gems.

Diamonds.

Gold.

Topaz.

Garnet.

Fire Opal.

Amethyst.

Quartz Crystals, &c.

LOT 67.

36 SPECIMENS.

Unia.

LOT 68.

40 SPECIMENS.

Unio Bivalves.

ABBREVIATIONS.

It has been deemed advisable, for the information of the uninitiated, to give the following list of abbreviations of localities, being those in general use :

Ala.	for Alabama.	Mo.	for Missouri.
Ark.	" Arkansas.	N. C.	" North Carolina.
Cal.	" California.	N. H.	" New Hampshire.
Conn.	" Connecticut.	N. J.	" New Jersey.
Del.	" Delaware.	N. S.	" Nova Scotia.
Flor.	" Florida.	N. Y.	" New York.
Ga.	" Georgia.	O.	" Ohio.
Ill.	" Illinois.	Pa.	" Pennsylvania.
Ind.	" Indiana.	R. I.	" Rhode Island.
Ky.	" Kentucky.	S. C.	" South Carolina.
L. S.	" Lake Superior.	S.	" South.
La.	" Louisiana.	Tex.	" Texas.
Mass.	" Massachusetts.	Va.	" Virginia.
Md.	" Maryland.	Vt.	" Vermont.
Me.	" Maine.	W.	" West.
Miss.	" Mississippi.	Wis.	" Wisconsin.

ALPHABETICAL INDEX OF SPECIMENS.

N. B.—The abbreviations after each specimen show the localities from whence it has been brought.

Adularia (Moonstone), Pa.
Actinolite, R. I., Pa.
Agate, Flor., L. S. Miss.
Agalmatolite, Mo.
Alasmadonta calceola, S. & W.
" complanata, "
" marginata, "
" Sayii, "
" undulata, "
Algerite, N. J.
Amethyst, R. I., Flor., L. S.
Amianthus, Md., R. I., Mass., Vt.
Amnicola lustrica, Ga.
Ampullaria Hoptonensis, Ga.
Anadonta cataracta, S. & W.
" cuneiana, "
" gibbosa, "
" imbecilis, "
" incerta, "
" magnifica, "
" plana, "
" rugosa, "
" suborbiculata, "
Analcim, N. J., N. S.
Anchulosa costata, S. & W.
" praoriosa, "
" subglobosa, "
Andalusite, Pa., Mass.
Antimony sulph., Me.
Anthracite, Pa., R. I.
Apatite, N. Y., N. J.
Apophyllite, N. J., N. S.
Aplome, Pa., N. Y.
Argyllite, Ga.
Arkansite, Ark.
Asaphus caudatus, N. Y.
Asbestos, R. I., Mass., Md.
Atrypa subtrigonatis, O.
" increbescens, "
Baltimorite (new mineral), Pa.
Baryta, compact, N. Y.
" sulphate, Con., N. Y., Ind.
Belemnites Americana, N. J.
Beryl, N. H., Con., Pa.
Bismuth (Native), Con.
Bituminous Coal, Pa., Md., Eastern and Western Va., Ill., Ind., O., Mo.
Blende, Black, N. J., Pa.
" Yellow, Mo., Pa.
Black Schorl, Con.
" Ox. Copper, L. S.
" Ox. Cobalt, Mo.
" Lead, N. C., N. H.
Blue Limestone Fossils, O.
Brucite, N. Y.
Bucholzite, Va.
Crystals, Beryl, N. H., Con., Pa.
" Copper, L. S.
" Diamonds, Ga.
" Franklinite, N. J.
" Galena, Ill., Mo.
" Gold, Cal.
" Macle, Mass.
" Mica, Pa.
" Quartz, Ark., N. Y., Pa.
Calamine, Pa., Wis., Mo.
Calcareous Spar, R. I., N. Y.

Cannel Coal, Pa., Mo., Western Va.
 Calymene senaria, O., N. Y.
 " beckii, " "
 Catlinite (Red Pipestone), Indian Territory.
 Chabasite, N. J., N. S.
 Chalcedony, Pa., Flor.
 Chesterlite (new mineral), Pa.
 Chlorophene (Fluor Spar), Conn.
 Chlorophyllite, N. H.
 Chlorite, Md., R. I.
 Chrome, Md., Pa.
 Chrysocolla, Me.
 Clay (White), Ga.
 Coccoelite, N. Y., Mass.
 Colophonite, N. Y., R. I., Mass.
 Comptonite, Mass.
 Corundum, N. Y., N. J., Pa., N. C.
 Crinoidea, O., N. Y.
 Cycas Parthumeia, S.
 " Rhomboidea, S.
 Cyathophyllum, Ind.

Diamonds, Native, Ga.
 Datholite, N. J.
 Delthyris lynx, O.
 Dog Tooth Spar, N. Y., Mo.
 Drusy Quartz, Mo.
 Dysloite, N. J.

Egeran, Vt., N. Y.
 Elastic Sandstone, Ga.
 Emerald Nickel, Pa.
 Emeryllite (new mineral), Pa.
 Epidote, N. H., Vt., R. I., N. Y.
 Euphyllite (new mineral), Pa.

Felspar, Crystal, N. Y.
 " white vitrous, Pa., Del.
 Fibrolite, Pa., R. I.
 Fibrous Gypsum, stalactiform, Mammoth Cave, Ky. & N. S.
 Fibrous Tremolite, Pa., N. H., Conn.
 Fire Opal, Ga.
 " Clay, Md.
 Fluor Spar, Ill., N. Y.
 Fossil Shells, O., N. Y., Ala.

Fossil Tusk of Mastodon, Ky.
 " Teeth of Hippopotamus, Ill.
 " " Shark, Va., Ala.
 " " Mastodon, Ky., Mo.
 " Woods, Miss., Ill., Tex.
 Franklinite, N. J.
 Fucoides Harlani, N. Y.

Garnet, Conn., R. I., Mass., N. Y.,
 " black, N. J.
 Geode Quartz, Miss. River, near Warsaw.
 Geode Iron, Pa.
 Gold (Native), Cal., Ga., Va.
 Green Mica, Me.
 " Talc, Ind., R. I.

Helicina occulta, S.
 Helix albilabris, S. & W.
 " appressa, "
 " clausa, "
 " alternata, "
 " concava, "
 " electrina, "
 " elevata, "
 " fallax, "
 " fluroides, "
 " fraterna, "
 " interna, "
 " minuscula, "
 " lineata, "
 " monodon, "
 " palliata, "
 " perspectiva, "
 " pomata, "
 " profunda, "
 " septemvolva, "
 " solitaria, "
 Hematite, Pa., N. J., Mo.
 Heulandite, N. S.
 Homonolotus, N. Y.
 Idocrase, Vt., R. I.
 Iron Ores, Pa., N. J., Conn., Mo., N. Y., Ind.

Jeffersonite, N. J.

Knauerite (new mineral), Pa.
 Kyanite, N. Y., R. I., Mass., Pa.
 Labrador Spar, N. Y.
 Lancasterite (new mineral), Pa.
 Lederite, N. Y.
 Lead, Argentiferous, N. H., N. Y.
 " Carbonate, Pa., N. C., Mo.
 " Molybdate, Pa.
 " Phosphate, "
 " Sulphuret, N. H., Mo., Ill., Pa.
 Lepidolite, Me., Mass.
 Leptena tenuilineata, O.
 " alternistriata, O.
 Limestone, Sandusky, O.
 " Phosphate, N. J.
 Limonite, Ten.
 Lingula antigua, N. Y., O.
 Lymnea deciduosa, Ga.
 " gracilis, "
 " integra, "
 " jugularis, L. S.
 Macle, Mass.
 Magnesia, Carb. Pa.
 " Hydrate, N. J.
 Manganese, Oxide, S. C., Vt.
 Margaritina arcula, S.
 " confragrosa, S.
 " complanata, "
 Marmolite, N. J., Md.
 Marble, black, Vt.
 " colored, L. S.
 " pudding, from House of
 Representatives at
 Washington.
 " white, Md., and from the
 National Monument
 and Patent Office at
 Washington.
 Melania armigera, S. & W.
 " arctata, "
 " annullifera, "
 " brevis, "
 " cannaliculata, "
 " carino costata, "

Melania conica, S. & W.
 " crebri striata, "
 " depygis, "
 " Georgiana, "
 " Haydii, "
 " lima, "
 " robusta, "
 " simplex, "
 " truncata, "
 and many heretofore un-
 known species.
 Melanite, N. J., Mass.
 Mesotype, N. J., N. S.
 Micaceous Iron, Ind., Pa., N. J., Md.
 Mica, black, N. Y.
 " brown, N. Y., R. I., N. H.
 N. J.
 " crystall., Pa., R. I.
 " large sheets, N. H.
 " green, Me.
 " white, R. I., Pa., Md.
 " cut for lanterns, stoves, &c.
 Molybdena Sulph, Conn.
 Momolite (new mineral), Pa.
 Moonstone (iridescent adularia),
 Pa.
 Mussite (new mineral), Pa.
 Murchisonia, O., N. Y.
 Nacrite, R. I.
 Nephrite, "
 Nickel Magnesite, (new mineral),
 Pa.
 Novaculite, or Arkansas Oilstone,
 the best whetstone known, Ark.
 Nuttalite, N. Y.
 Octahedral Magnetic Iron, Pa.
 Opal, Fire, Ga.
 " Wood, Miss.
 Ores, Antimony, Me.
 " Bismuth, Conn.
 " Cobalt, Mo.
 " Copper, Conn., Pa., Md., Mo.,
 L. S., N. J.
 " Iron, Conn., Pa., Md., Mo.,
 N. J., N. Y.

Ores, Lead, N. H., N. Y., Mo., Pa.,		Sphene, N. Y.
III.		Spinelle, N. Y., N. J.
" Manganese, Vt., S. C.		Sillimanite, Conn.
" Silver, N. Y., N. H., N. C.		Spodumene, Mass.
" Tin, N. H.		Staurotide, Mass., Vt
" Tungsten, Conn.		Soapstone, Vt., Md.
" Zinc, N. J., Pa., Mo., Wis.		Stilbite, N. J.
Orthis occidentalis, O.		Steatite, N. Y.
Orthoceratite, O.		Sunstone, Pa.
		Stalactite, Ill.
		Satin Spar, N. Y.
Palludina decisa, S.		
" globosa, "		Talc, green, Pa., Ind., R. I.
" integra, "		" yellow, " "
" intertexta, "		" purple, " "
" ponderosa, "		" white, " "
" purpurea, "		" black, N. Y.
" sub-purpurea, "		Titanium, Pa.
" vivipara, "		Trilobites, N. Y., O.
and many heretofore		Topaz Rocks, Conn.
unknown species.		Tourmalin, black, Me., Conn., Mass.
Petalite, Mass.		" brown, " "
Picrolite, Pa.		" green, " "
Pleurotomaria umbilicata, N. Y.		" red, " "
Plombgomme on Cobalt, Mo.		Tremolite, N. H., Pa., N. Y.
Prehnite, R. I., Mass., Pa.		Troostite, N. J.
Pyrites, Copper, Conn., Pa., Md.		Tungsten, Conn.
" Iron, N. H., Pa., N. Y.		
Pyroxene, Lederite, and Zircon,		Unio abruptus O.
N. Y.		" alatus, Lake Champlain, O.,
Quartz, R. I., N. Y., Mass., Ark.,		Mo., Ga.
Mo.		" arctatus conrad, S.
Rose Quartz, R. I., Mass., Me.		" anadontoides, O.
Rhodo Chrome (new mineral), Pa.		" apiculatus, La.
Rutil, Pa.		" asperimus, O.
		" atro marginatus, Ga.
Sahlite, N. Y., Vt.		" Boykinianus, Ga.
Sand, white, for glass, Mass., Mo.		" brevidens, O.
Scheelite, Conn.		" bullatus, Ga.
Scapolite, Mass., N. Y.		" Callosus, O.
Schorl, Conn.		" Camelus, O.
Schorlomite, Ark.		" camptodon, La.
Selenite, Md.		" capsiformis, W.
Spathose Iron, Conn., N. Y.		" Cariosus, S.
Silver, Native, L. S.		" catillus, O.
		" circular, O.
		" cincinnatensis, O.

Unio triangularis, W.
 " *tuberculatus*, W.
 " *undulatus*, W.
 " *complanatus*, S.
 " *confertus*, S. C.
 " *concordiana*, La.
 " *Cooperianus*, O.
 " *cornutus*, La., O.
 " *castaneus*, O.
 " *crassidens*, S. & W.
 " *crassidus*, Mo.
 " *crassus*, Mo., O.
 " *cuneatus*, W. & S.
 " *cumberlandicus*, Tex.
 " *cylindricus*, S. & W.
 " *Decisus*, Ala.
 " *declivis*, Ala.
 " *Dipasplicata*, S.
 " *dolabraeformis*, Ga.
 " *œsopus*, O.
 " *elegans*, O.
 " *elipsis*, O.
 " *exiguus*, Ga.
 " *ellipsiformis*, W.
 " *ebenus*, O.
 " *fabilis*, O.
 " *fisherianus*, Md.
 " *foliatus*, S. & W.
 " *folliculatus*, O.
 " *georgianus*, Ga.
 " *gibber*, Tex.
 " *gibbosus*, W.
 " *globosus*, W.
 " *glans*, O.
 " *gracilis*, S. & W.
 " *heterodon*, Ga.
 " *hippopea*, Ga.
 " *hoptonensis*, Ga.
 " *inflatus*, O.
 " *interruptus*, S. & W.
 " *irroratus*, "
 " *Kirtlandianus*, O.
 " *Lesuerianus*, O.
 " *Lecontianus*, Ga.
 " *lachrymosus*, O. & Mo.
 " *levissimus*, S. & W.
 " *lens* W.

Unio lineatus, Ga.
 " *lugubris*, Ga.
 " *multiplicatus*, V.
 " *metaniverus*, O.
 " *multiradiatus*, O.
 " *militaris*, S.
 " *Mortoni*, S.
 " *Narsutus*, W.
 " *Nodosus*, O.
 " *obliquatus*, W.
 " *obesus*, O.
 " *obscurus*, Ten.
 " *oviformis*, Ala.
 " *ovatus*, W.
 " *paulus*, Ga.
 " *parvus*, O.
 " *perplexus*, O.
 " *peroratus*, Ala.
 " *personatus*, O.
 " *phaseolus*, O.
 " *plicatus*, S. & W.
 " *planulatus*, S.
 " *plenus*, O.
 " *pustulatus*, O.
 " *pustulosus*, O.
 " *Radiatus*, Lake Champlain.
 " *Ravelianus*, S. C.
 " *rectus*, O. & S. C.
 " *regularis*, Tex.
 " *retusus*, W.
 " *rotundus*, O.
 " *Shephardianus*, Ga.
 " *Sayii*, Wis.
 " *securis*, O.
 " *siliquoides*, O.
 " *solidus*, O.
 " *spinosus*, Ga.
 " *splendidus*, Ala.
 " *strigosus*, Ga.
 " *striatus*, Ga.
 " *subrotundus*, O.
 " *suboyatus*, O.
 " *sulcatus*, W.
 " *trapezoides*, La.
 " *tenuissimus*, W.
 " *triquetris*, O.
 " *trigonus*, O.

Unio clavus, O.

- " *coccineus*, Wis. O.
- " *compressus*, S. & W.
- " *varicosus*, O.
- " *ventricosus*, S. C.
- " *verrucosus*, O.
- " *Zigzag*, O.

Williamsite (new mineral), Pa.

Wood, Opal, Miss.

- " *Fossil*, S.

Yenite, R. I.

Zeolite, N. J.

Zircon, N. C., N. Y.

Zinc, blende, Pa., Wis., Mo.

- " *red oxide*, N. J.

- " *silicated*, N. J.

124.

